IDA

**Joint
Advanced
Warfighting
Program**

INSTITUTE FOR DEFENSE ANALYSES

Improving Capabilities for Irregular Warfare

Volume II: Capabilities Analysis

Alec Wahlman

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Preface

This paper was prepared under the task order Joint Advanced Warfighting Program (JAWP) for the Director, Defense Research and Engineering, Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics). It describes a framework, including processes, and applications for identifying program initiatives aimed at improving the Department of Defense capabilities for irregular warfare (IW). Volume I describes the framework and applications, and Volume II contains detailed discussions of the capabilities required for IW.

This volume benefited from insightful and shrewd comments of reviewers James H. Kurtz, Robert B. Polk, and Scott R. Fiel. Also providing important contributions to this volume were William J. Hurley, the study task leader, and fellow team member, Joel B. Resnick, both of whom, along with this author, were the co-authors of the study's Volume I, *Framework and Applications*.

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The Joint Advanced Warfighting Program (JAWP) was established at the Institute for Defense Analyses (IDA) to serve as a catalyst for stimulating innovation and breakthrough change. It is co-sponsored by the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Under Secretary of Defense for Policy; the Vice Chairman of the Joint Chiefs of Staff; and the Commander, United States Joint Forces Command (JFCOM). JAWP includes military personnel on joint assignments from each Service and civilian specialists from IDA. JAWP is located in Alexandria, Virginia, and includes an office in Norfolk, Virginia, to facilitate coordination with JFCOM.

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The range of actions required of the Blue team in irregular warfare (IW) is broad and diverse, more so than with regular warfare. In support of this study's efforts to explore the nature of IW and US capability shortfalls, this volume maps out the mission landscape, addressing both the missions involved and the capabilities that support those missions. The supporting capabilities listed for each mission are not meant to denote every capability needed for a given mission, but rather those that are unique to, or uniquely applied in IW. The study team from the Institute for Defense Analyses describes in broad terms the resulting twenty-three missions (see **Figure ES–1** below).

Irregular Warfare Campaign
(Example of Iraq)
Missions
(23 total)
Missions support the overall IW campaign
Examples: Neutralize Red Forces, Support Educational System
Each mission has its own set of supporting capabilities
Capabilities
(92 total)
Capabilities support the various missions
Examples: Detect HAZMAT, Counter-Sniper
Most capabilities support more than one mission

HAZMAT – hazardous material

Figure ES–1. Three-Layer Hierarchy

This study does not assign particular missions or supporting capabilities to the Department of Defense. Even for an existing IW campaign it is still difficult to map out who is doing what and what the most efficient partner-to-task pairing would be. To do so for a future notional scenario is next to impossible.

Volume II includes rough assessments as to how the US Government has demonstrated the capabilities in the context of current operations in Iraq. These assessments were judgments of the authors of this study, informed by a wide range of unclassified sources, including military personnel with experience in Iraq. Only those capabilities we believed most notably insufficient are marked as such. Overall, we found about one-third of the capabilities in need of substantial improvement.

The focus of Volume II is on describing the capabilities themselves. For a discussion of the demand patterns for capabilities, both across the various missions and in terms of performance in Iraq, see Volume I (Chapter 4 and Appendix B). **Note:** For those readers who have not read Volume I of this study, see the "Summary of Volume I" section in this volume (Chapter I, Section B).

Improving Capabilities for Irregular Warfare

Volume II: Capabilities Analysis

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I.   Introduction

A. Purpose and Background

This two-volume report summarizes an effort by a study team from the Institute for Defense Analyses (IDA) that addresses the nature of irregular warfare (IW), its implications for US force planning, and the development of a framework to help Department of Defense (DoD) force planners determine program initiatives aimed at improving US capabilities for IW.

The Iraq experience has evolved and generated a vast dialog and burgeoning literature on IW, providing real-time and real-world insight into the nature of IW in its many phases. The study team has been monitoring this activity and studying its implications for force planning. This report summarizes the results of that effort and illustrates the application of those results.

The purpose of Volume II, Capabilities Analysis, is to describe the capability landscape for the Blue team and host-nation government (HNG), and provide a rough assessment of US Government performance in Iraq for those capabilities. This portion of the study aided the IDA study team in identifying, the attributes that distinguish IW from regular warfare, general directions for improving how DoD contributes to IW, and the patterns that emerged in the capabilities needed for IW, all of which were discussed previously in detail in Volume I.

As there is no universally accepted definition of "irregular warfare," this lack of a common definition complicated the team's efforts at defining the problem space.[1] For this study we used Iraq to define our focus. While we don't mean

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[1] In August 2006, US Joint Forces Command (JFCOM) conducted a study of how the term "irregular warfare" matched up with joint doctrine. The study found the term had no widely accepted definition and was more often used as a general term to denote a range of other more defined terms (e.g., Foreign Internal Defense, Unconventional Warfare). US Department of Defense, Joint Forces Command, *Irregular Warfare Special Study*, 4 August 2006.

to limit the utility of our structure to Iraq, we felt the richness, complexity, and difficulty of the Iraq war made it a useful example.

IW is characterized by both complex problems and complex solutions, solutions that come from a wide range of Blue team members.[2] For DoD to play a successful role, it needs to understand this operational environment, the actors within, and the various missions that will be undertaken by the Blue team.[3] Solutions crafted in isolation by subsets of the Blue team will at most achieve isolated successes. In any particular IW scenario involving DoD, DoD should be positioned to provide some capabilities for the Blue team, but the scale and scope of that contribution will be highly situation dependent. This study does not specify which of the capabilities DoD should possess but it does discuss some criteria for analyzing DoD's role in the Blue team division of labor.

B. Summary of Volume I

Note: If the reader has not read Volume I, key points from Volume I are given below that most relate to the content of Volume II.

The structure of IW is fundamentally more complex than that of regular warfare (RW). Actors that are part of the background environment in RW emerge as key actors in IW. The simple binary interaction between Blue and Red usually seen in RW is replaced with a complex and dynamic interaction between four categories of *actors*: Blue, Red, Population, and HNG (see **Figure I–1**).[4] Each

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[2] In this study, the term "Blue team" refers to the HNG itself and all actors working with the HNG to strengthen it and/or to suppress anti-government actors. In some portions of this report, the HNG is broken out separately from the rest of the Blue team, but this is only done because of the unique role and attributes of the HNG. The other members of Blue are DoD, other US Government agencies, Coalition partners, international organizations, non-governmental organizations (NGOs), and contractors.)

[3] Secretary of Defense Robert S. McNamara's testimony before Congress on July 22, 1964. "The primary problem in South Vietnam is not a military problem. The primary problem is a political and economic problem. Unless we can introduce political and economic stability in that country, there is not any possibility of a military solution." Robert S. McNamara, *In Retrospect: The Tragedy and Lessons of Vietnam*, (New York: Random House, 1995), p. 110.

[4] Together, actors and "environment" are called "objects" in this report.

category of actors (e.g., Blue category) is really a loose grouping of various actors whose abilities, motivations, and allegiances vary with time, even within the category of actor in which they belong. More important is the emergence of "Population" as central to this structure. *The support of the population becomes a key objective of Blue, Red, and the HNG*. For Blue, the population becomes an essential partner for suppressing Red, legitimizing the HNG, and supporting reconstruction.

The differences in IW and RW can also be described in terms of *overlap*: some actions in IW are similar to those in RW (see **Figure I–2** on the next page). One example is the second storming of Fallujah in November 2004. While the Red combatants were not in uniform, they were massed, the battlespace was largely devoid of non-combatants, the fight was of short duration, and Blue's actions were almost exclusively military in nature. However, far more common in IW are activities of a very different nature that do not overlap with RW. These differences are described in terms of *distinguishing attributes*.
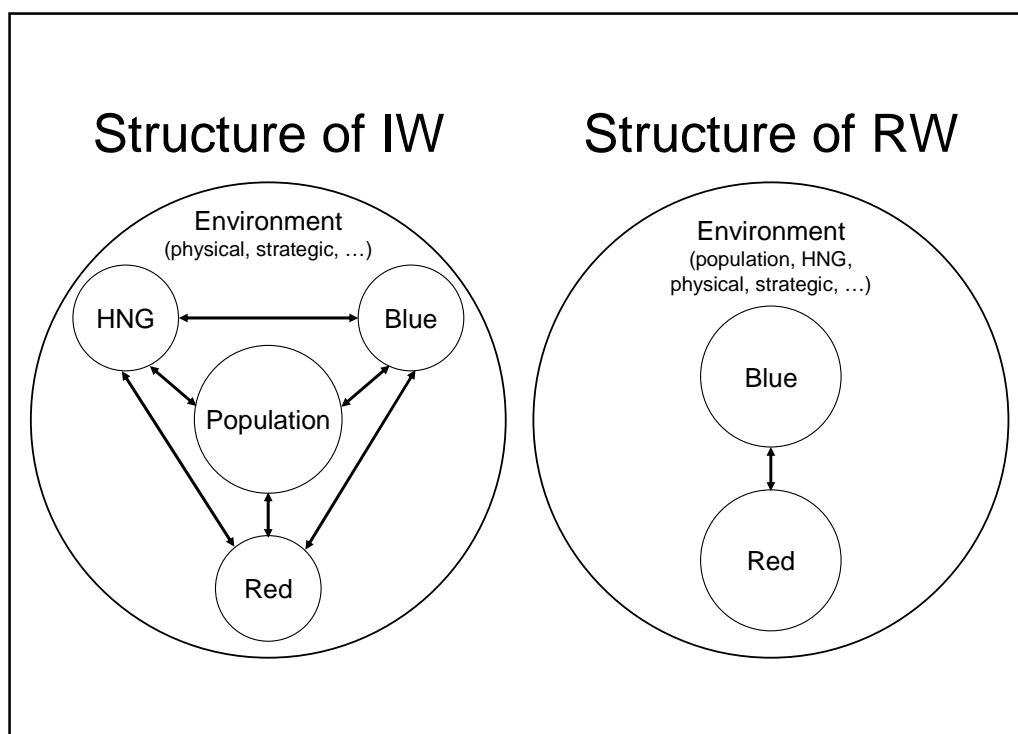
Figure I–1. Structural Difference Between IW and RW

How IW and RW Differ:
Five Distinguishing Attributes

<u>IW</u>

<u>RW</u>

What's different in IW

Centrality of Human Terrain

Complex mix of civil-military actors and operations

Different nature of combat actions

Requirement to consolidation

Goal of Transition to the host-nation government

Example of overlap: Fallujah Nov 2004

IW is <u>not</u> a lesser-included case of RW
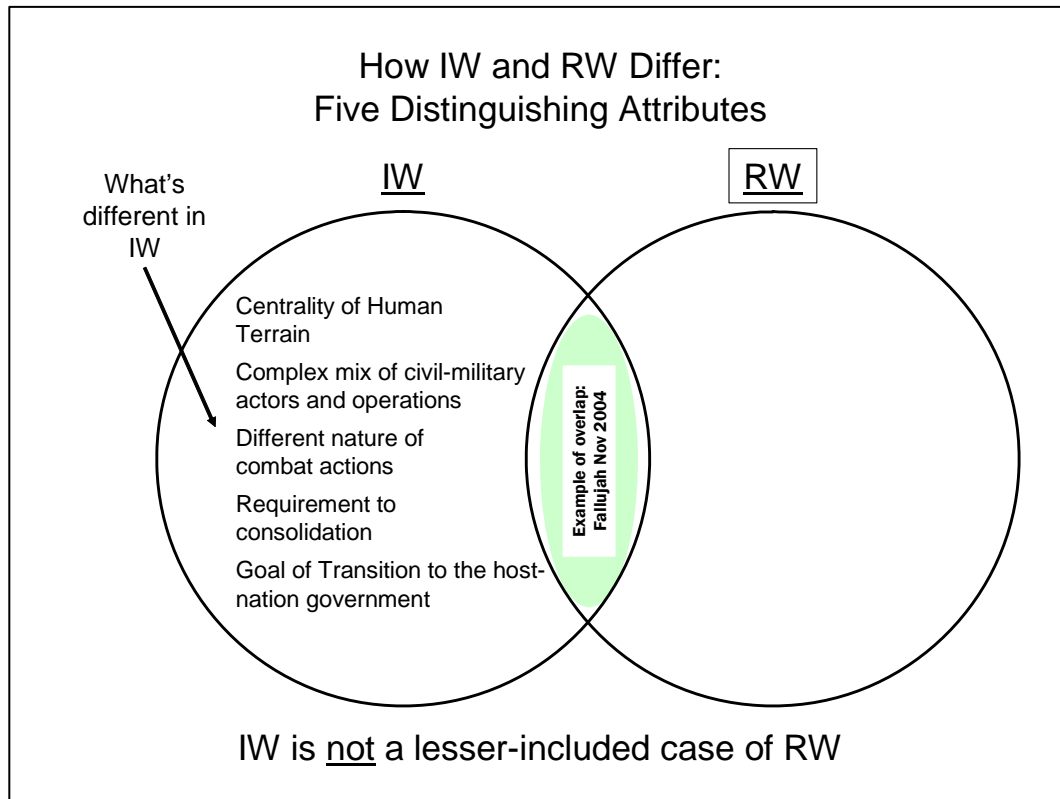
Figure I–2.　　Distinguishing Attributes of IW

Five distinguishing attributes of IW:

- **Centrality of human terrain:** The population's cooperation is essential for legitimizing the HNG, suppressing Red, and supporting reconstruction.

- **Complex mix of civilian and military organizations and activities:** The Blue force is a large, complex, and tight coupling of civilian and military actors working together to perform an equally complex mix of military and civilian operations.

- **Different nature of combat actions:** Combat operations are more dispersed, conducted by smaller Blue units against small Red units, often in urban environments and generally over longer timelines.

- **Requirement to consolidate:** The normally fluid give-and-take of terrain in RW is replaced by a need to retain control of most terrain once taken. As the population and infrastructure are usually tied to specific

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terrain, both suffer greatly if the control of a given area switches repeatedly between Red and Blue.

- **Goal of transition to HNG:** The overall goal of IW is not to simply defeat Red but rather to build up the HNG to where it can deal on its own with Red, perform the more general functions of government, and win the support and/or tolerance of the population.

Using these five distinguishing attributes as a guide, the study team selected focus areas for a more detailed examination that is found in Volume I (**Table I–1** from Volume I is reprinted below). These illustrative focus areas were selected for their importance to IW and the need for improved US Government performance in each area. The treatment of each focus area includes the role each area plays in IW, the associated capabilities, and suggested program initiatives for improving the associated DoD capabilities.

Table I–1. Illustrative Focus Areas for Program Initiatives

A. Transition

B. Influencing the Population

    (1) Theater Communications

    (2) Personal Interactions

C. Civilian and Military Organizations and Activities

D. Policing-Related Capabilities

    (1) HNG Police That Support Rule of Law

    (2) IW Using Policing Tools, Systems, and Approaches

E. Technology

Source: William J. Hurley, Joel B. Resnick, and Alec Wahlman, *Improving Capabilities for Irregular Warfare. Volume I: Framework and Applications*, IDA Paper P-4267 (Alexandria, VA: Institute for Defense Analyses, August 2007): p. V–2.

C. Organization of This Volume

Chapter II, Mission-Capability Process. This chapter briefly describes the custom-built approach for generating missions and capabilities developed by

the study team and the reasons for using such an approach rather than an existing standard DoD process.

Chapter III, Organization of the Capabilities in This Volume. This chapter describes the organization of the capabilities in this volume, which is based on the relation of each capability to the mission or missions it supports.

Chapter IV, Capabilities List. The actual list of capabilities, organized by mission.

Appendix A, Capabilities Listed by Understand–Shape–Engage Type. Appendix A is a list of all the missions and their supporting capabilities, stating only the capability name and whether substantial improvement is needed. The list is organized character by character: by letter (in order of U, S, and E) and then by number. Example order: U24, U25, UE31, US35.

Appendix B, Bibliography. The bibliography has been expanded to include additional background reading.

Appendix C, Acronyms and Abbreviations.

II. Mission-Capability Process

The study team did not use the Joint Staff's Joint Capabilities Integration and Development System (JCIDS) to generate either the IW missions or their supporting capabilities. The JCIDS process uses a wide range of inputs, some of which did not exist relative to IW at the time this study was conducted. Given the ill-defined and complex nature of IW, a custom-built approach better suited the needs of the study.[5] (See Appendix C, which describes the differences between a JCIDS capability-based assessment and the process used in this study.)

With Iraq as an example of an IW campaign, the study team asked what were the missions that supported the overall campaign objective of preserving and strengthening an HNG to the point that the HNG could stand on its own. The team then generated a list of twenty-three missions to support the overall campaign objective. (For this report, the term "mission" is defined as "a task that supports the overall IW campaign.") The team then generated the capabilities needed to support each of those missions.[6] (The term "capability" is defined as "the ability to take certain actions, or generate specific effects, in support of a mission.")

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[5] An August 2006 study by the Joint Warfighting Center at JFCOM found the term "irregular warfare" had no widely accepted definition and often was used as a general term to denote a range of other more narrowly defined terms (e.g., "Foreign Internal Defense," "Unconventional Warfare"). With this usage as evidence, the JFCOM study concluded that the term "irregular warfare" was not defined enough for doctrine development. US Department of Defense, Joint Forces Command, Joint Warfighting Center, *Irregular Warfare Special Study*, 4 August 2006.

[6] The Joint Warfighting Center's *Irregular Warfare Special Study* also took those defined terms that related to IW and compiled a list of related UJTL (Universal Joint Task List) tasks. The IDA study team compared that list with the capabilities generated in this study. While the language and scope of the UJTL often differed, the team found no UJTL tasks that needed to be added to this report's list of capabilities.

The result was a list of ninety-two capabilities, many of which support more than one mission. However, not every capability was included, only those that the study team saw as being either new to IW or else applied differently within the context of IW.[7] The report uses a three-layer hierarchy in which the IW campaign is supported by missions which, in turn, are supported by capabilities (see **Figure II–1** below).

Irregular Warfare Campaign
(Example of Iraq)
Missions
(23 total)
Missions support the overall IW campaign
Examples: Neutralize Red Forces, Support Educational System
Each mission has its own set of supporting capabilities
Capabilities
(92 total)
Capabilities support the various missions
Examples: Detect HAZMAT, Counter-Sniper
Most capabilities support more than one mission

HAZMAT – hazardous material

Figure II–1. Three-Layer Hierarchy

Many different sources influenced the team's generation of missions and capabilities for this report. Two that stand out are the US State Department's *Post-Conflict Reconstruction Essential Tasks* (April 2005), and a February 2003 Army War College study, *Reconstructing Iraq: Insights, Challenges, and Missions for*

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[7]   For example, we do not list a general capability for inter-theater logistical support to military forces, but we do list specific capabilities for supplying forces in isolated urban locations and planning for logistics in a long-duration IW campaign.

Military Forces in a Post-Conflict Scenario.[8] These two documents provided a starting point for the IDA study team to define the range of Blue team missions and the capabilities to support those missions. The study also benefited from previous research the author conducted on urban operations. Other sources were the many official and unofficial unclassified reports from past and current IW operations, an open-source literature review, and discussions with various military and non-military individuals, some with experience in Iraq.

A. Missions

The twenty-three missions encompass a full range of activities in IW, not just those involving DoD (see **Figure II–2** on the next page). That list of missions, performed by the HNG and all other members of the Blue team, goes well beyond those performed in RW. (These other members of Blue are defined as DoD, other US Government agencies, Coalition partners, international organizations, non-governmental organizations (NGOs), and contractors.)

While drawing substantially from the Iraq conflict, the study team intended this mission map to be generic and applied across a range of IW scenarios. The missions were grouped by their likely participants. The Combat and Support Missions group represents missions with a major role for military members of the Blue force, while the other four are more of a civilian nature.

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[8] US State Department, Office of the Coordinator for Reconstruction and Stabilization, *Post-Conflict Reconstruction Essential Task*s (April 2005). Conrad C. Crane and W. Andrew Terrill, *Reconstructing Iraq: Insights, Challenges, and Missions for Military Forces in a Post-Conflict Scenario*, (Carlisle, PA: Strategic Studies Institute, US Army War College, February 2003).

The pairing of Blue team members with the various missions will vary by scenario. The generic missions chart illustrates the twenty-three missions grouped into five groups. The first group, Combat and Support, is the military-centric portion of IW while the other four relate to various civil systems.
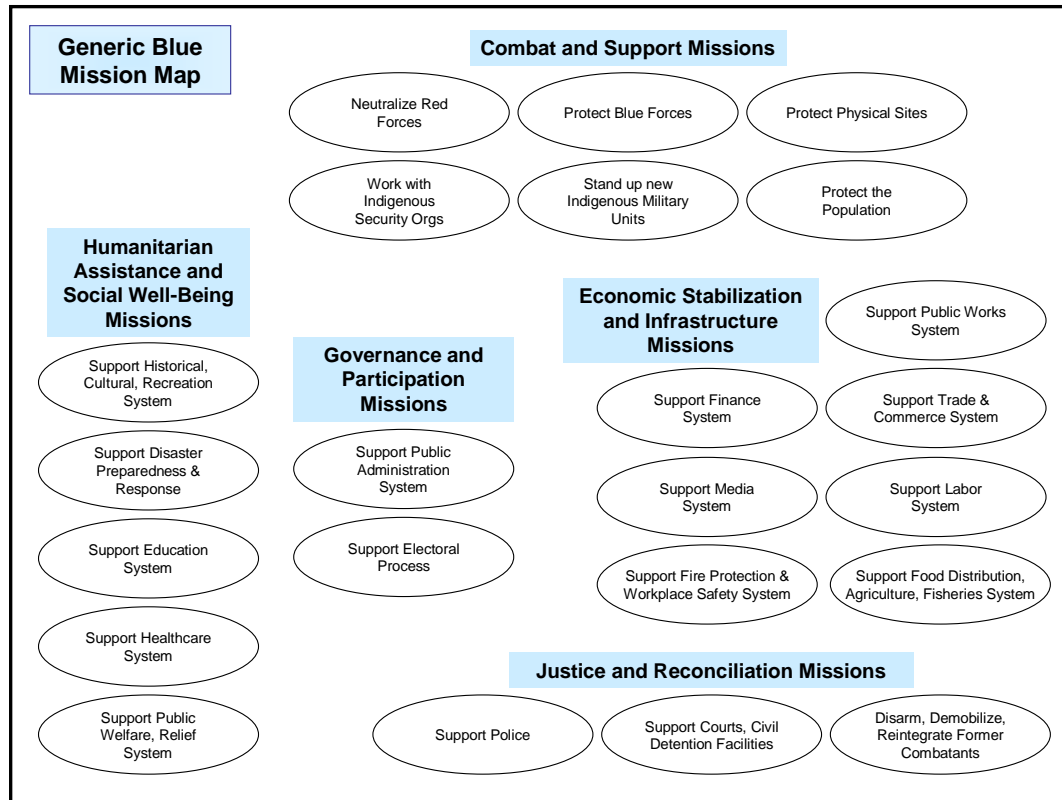
Figure II–2. Generic Blue IW Mission Map

B. Capabilities

The study team generated ninety-two capabilities to support the twenty-three missions, with many of the capabilities supporting more than one mission. All the capabilities have letter and number designations. While the number is only used to distinguish the individual capabilities from each other, the letter designations correspond to a construct introduced in Joint Publications 3-06, *Doctrine for*

Joint Urban Operations.[9] Labeling the capabilities by type—Understand, Shape, or Engage—aided the team in analyzing supply and demand patterns:

- **Understand:** A capability designed to enhance knowledge about the conflict participants or environment.

- **Shape:** A capability designed to generally alter the conflict participants or environment in Blue's favor.

- **Engage:** A capability for directly interacting with Red or the civilian population, kinetic or otherwise.

Examples:

> U8 – Understand Civilian Movement Patterns
>
> S18 – Counter IEDs
>
> E2 – Mediate disagreements between groups, before, during, and after they turn violent

When a capability addressed more than one element of U–S–E, multiple letters were used (e.g., US42).

In any IW scenario, DoD should be positioned to provide certain capabilities for the Blue force efforts, but the scale and scope of that contribution will be highly situation dependent. This report does not designate specific capabilities to DoD but the following criteria can be used for evaluating which capabilities DoD should cultivate internally for IW:

- **Integral to DoD combat operations:** Some capabilities are integral to DoD IW combat operations and that degree of integration makes them desirable DoD capabilities. An example of this would be "Command and control in an urban environment."

- **Essential for cooperation with others:** Some capabilities are needed for DoD to work effectively with other participants. Because it is highly unlikely DoD would be involved in an IW campaign devoid of

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[9] US Department of Defense, Joint Staff, Joint Publication 3-06, *Doctrine for Joint Urban Operations*, 16 September 2002, pp. II–8 to II–13.

other Blue force participants, the capability to work with others is essential. The capability to cooperate, for example, requires that coordination extend to the planning process and exercises. An example of this would be "Communication nets that can reach across organizational boundaries."

- **Support to critical civil systems:** Some civil systems are especially sensitive even to brief operating disruptions. Sometimes as the first responder on the scene, DoD will need the capability to protect and operate some civil systems on an emergency basis for a limited time. An example of this would be an urban water system whose failure over just a few days could have widespread health ramifications for the population.

C. Capability Assessment

Having identified the demand side of IW (those ninety-two capabilities needed by Blue), the team next looked at the supply side, assessing how well each demand was being satisfied in Iraq, looking for those in most need of substantial improvement. As capabilities are situation specific, each capability's assessment was relative to its performance in Iraq at the time of the study effort. The team assessed how well the US Government, and not just DoD, was demonstrating a given capability in Iraq at the time of the IDA study. *The team identified thirty-four of the ninety-two capabilities as needing substantial improvement.* These capabilities received the following text label in their write-ups in this report:

A capability in need of substantial improvement.

III. Organization of the Capabilities in This Volume

This volume presents the capabilities in relation to the missions they support. In generating the capabilities for each mission, it became clear to the study team that a subset of the capabilities was applicable to all of the missions. These thirty-four capabilities were then put into their own category we called Foundational Capabilities.[10] While the capabilities not in Foundational Capabilities often supported more than one mission, they did not have the same broad utility across all the missions. Thus, any given mission was supported by (1) those capabilities specific to that mission, and (2) the Foundational Capabilities. (See **Figure III–1** on the next page.)

The Foundational Capabilities are presented first in the next chapter, followed by each mission and its associated capabilities. Each section begins with an organization chart showing the mission with its associated supporting capabilities organized by the capability labels Understand, Shape, and/or Engage.

The discussion under each capability often relates to issues important to DoD, but it is not limited to that aspect. For a discussion of the demand patterns for capabilities across the various missions, and patterns in the assessment of how well those capabilities were supplied in Iraq, see Volume I of this report, specifically Chapter 4 and Appendix B.

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[10]   While there are thirty-four Foundational Capabilities and thirty-four capabilities in need of substantial improvement from the overall list of ninety-two, these are not one and the same. While both sets coincidently involve the same number of capabilities, which could be confusing, they are different sets. The Foundational Capabilities are those that apply to all missions (*a metric of demand*), while those needing substantial improvement are those that are not well supplied currently in Iraq (*a metric of supply*). Any given capability can belong to one, both, or neither of these sets.

| Some capabilities apply specifically to one or a few missions |
| Some capabilities apply across all missions: Foundational Capabilities |

Mission A	Mission B	Mission C	Mission D	Mission E
Capabilities that support Mission A	Capabilities that support Mission B	Capabilities that support Mission C	Capabilities that support Mission D	Capabilities that support Mission E
Capabilities that support all missions (Foundational Capabilities)				

Each mission needs:
The Foundational Capabilities + its mission-specific capabilities

Figure III–1. Capability Allocation to the Missions

After the organization chart, the capabilities are listed with descriptions and supporting footnotes. These descriptions and footnotes explain the need for the capability, describe its dimensions, and describe metrics for its performance. Some of the capabilities carry the "in need of substantial improvement" label, in relation to their performance in Iraq today by the US Government. For those capabilities, additional text and footnotes are usually included to address the "substantial improvement" assessment.

Included at the end of this volume in Appendix A is a simplified list of all the missions and their supporting capabilities. This list includes just the capability names but not the discussion or footnotes previously included in the main body of this volume.

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IV. Capabilities List

A. Foundational Capabilities

Foundational Capabilities

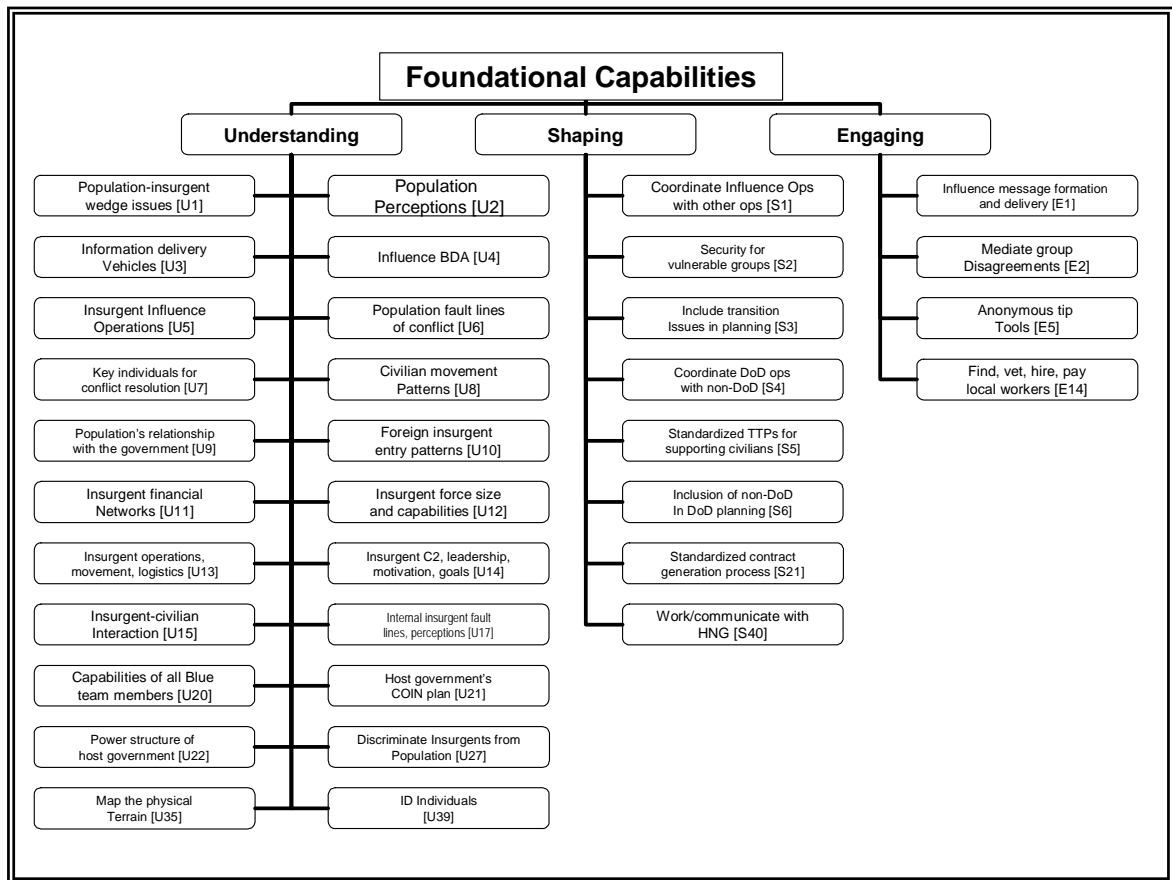| Understanding		Shaping	Engaging
Population-insurgent wedge issues [U1]	Population Perceptions [U2]	Coordinate Influence Ops with other ops [S1]	Influence message formation and delivery [E1]
Information delivery Vehicles [U3]	Influence BDA [U4]	Security for vulnerable groups [S2]	Mediate group Disagreements [E2]
Insurgent Influence Operations [U5]	Population fault lines of conflict [U6]	Include transition Issues in planning [S3]	Anonymous tip Tools [E5]
Key individuals for conflict resolution [U7]	Civilian movement Patterns [U8]	Coordinate DoD ops with non-DoD [S4]	Find, vet, hire, pay local workers [E14]
Population's relationship with the government [U9]	Foreign insurgent entry patterns [U10]	Standardized TTPs for supporting civilians [S5]	
Insurgent financial Networks [U11]	Insurgent force size and capabilities [U12]	Inclusion of non-DoD In DoD planning [S6]	
Insurgent operations, movement, logistics [U13]	Insurgent C2, leadership, motivation, goals [U14]	Standardized contract generation process [S21]	
Insurgent-civilian Interaction [U15]	Internal insurgent fault lines, perceptions [U17]	Work/communicate with HNG [S40]	
Capabilities of all Blue team members [U20]	Host government's COIN plan [U21]		
Power structure of host government [U22]	Discriminate Insurgents from Population [U27]		
Map the physical Terrain [U35]	ID Individuals [U39]		

Figure IV–1. Foundation Capabilities

[U1] Discern wedge issues that could set the population against the insurgents

The population has goals and beliefs, as do the insurgents, but they do not necessarily agree on their meanings.[11] The differences could be on issues of politics, religion, tribe, history, economics, or ethnicity. The information gathered on each wedge issue can be fed into the planning for influence operations and other types of operations.[12] The suitability of a wedge issue could be judged by the portion of the population it could sway against the insurgency, damage control options for the insurgents, the risk of sparking wider societal conflicts, the time needed to exploit the wedge, and if the criticism of Red also has any validity relative to Blue.

[U2] Discern divergences between population perceptions and reality and how to affect those perceptions

A capability in need of substantial improvement.

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[11] For an article describing US efforts to drive a wedge between the Iraqi population and Musab al-Zarqawi,the leader of al-Qaeda in Iraq, see Thomas E. Ricks, "Military Plays Up Role of Zarqawi," *Washington Post*, 10 April 2006, p. A01.

[12] In reference to the successful British counterinsurgency (COIN) operations in Malay in the 1950s and 1960s: "Harnessing nationalism as an issue for the government against the insurgents was the single most vital part of winning the 'hearts and minds' of the population." John A. Nagl, *Learning to Eat Soup with a Knife: Counterinsurgency Lessons from Malaya and Vietnam*, (Chicago: University of Chicago Press, 2005), p. 91. In South Vietnam, the Viet Minh and Viet Cong (VC) were very effective in exploiting a wedge issue between the rural population and government. They addressed directly the issues of landlessness, high rents, indebtedness, and high taxes, while US efforts failed to give these issues the same prominence. "In short, for the majority of Vietnam's population, the American program was irrelevant." D. Michael Shafer, *Deadly Paradigms: The Failure of U.S. Counterinsurgency Policy*, (Princeton, NJ: Princeton University Press, 1988), pp. 264, 266. As another example: In an area active with the VC, the local Vietnamese police chiefs often leveraged historical animosities between villages to gather intelligence. Bing West, *The Village*, (London: Pocket Books, 2003), p. 176.

Some societies consume a heavy diet of rumor and myth.[13] A source of this could be the culture or the political environment. Some societies have a general distrust of information from anyone they don't personally know, as in rural low-tech societies with limited contact with outsiders. Political culture can foster this preference for rumor and myth when a government strictly controls all media and punishes any critical public commentary.[14] The "reality" is then purged from the public realm and forced underground. Much of the population will be aware of this and distrust all "open" sources of information.[15] The down side is that the

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[13] In Robert Kaplan's time with Islamic warriors in Afghanistan and Pakistan in the 1980s, he found conspiracy theories were in general fueled by illiteracy: those who couldn't read relied more on hearsay. In Pakistan, the literacy rate was 33 percent, and even less than that in the tribal areas. Robert D. Kaplan, *Soldiers of God: With Islamic Warriors in Afghanistan and Pakistan*, (New York: Vintage Books, 2001), p. 243. Nir Rosen spent several years in Iraq after the removal of Saddam. He spoke the language, looked like an Iraqi, and had extensive contact with insurgents and the population. While in Iraq he was immersed in a sea of rumor. "Not a day went by that I did not hear another story about the Jews." These rumors ranged from the Israelis and other Jews buying up all the land in Iraq, to the Coca-Cola logo (supposedly owned by Jews) as saying "No Mecca, No Muhammad" when viewed in a mirror. Books that had been thoroughly discredited in the West were widely available and accepted at face value. Publications were also available that "proved" that Sunnis, and not the Shia, were actually the majority in Iraq. Nir Rosen, *In the Belly of the Green Bird: The Triumph of the Martyrs in Iraq*, (New York: Free Press, 2006), pp. 57–63.

[14] A common reference is made to "The Big Lie" in literature on the Soviet Union. It refers to the vast gulf separating what could be said (at least in public) from reality. For survival, every Soviet citizen had to think one thing and say another. The need was so great for alternate sources of trustworthy information that a semi-formalized network emerged in the 1960s, the *samizdat*, which roughly translates as "self-published literature." However, that constant bombardment of an alternate reality had its effect on the people. One citizen of the Soviet Union described the end of the Soviet Union this way: "The system had collapsed. The lying, the mythology, the substitution of the false for the real have disappeared. The legends so firmly rooted in our consciousness have collapsed under the pressure of the facts." Konstantin Azadovskii, "Russia's Silver Age, Yesterday and Today," *Remaking Russia: Voices from Within*, ed. Heyward Isham, (New York: M. E. Sharpe, 1995), pp. 82–84.

[15] If the old methods of communication are associated by the people with the lies of the old regime, then perhaps the new message will have to piggyback on new methods of communication. Given that totalitarian states strictly suppress the communication tools for the average citizen, a typical post-regime environment is likely to see an explosion in just that area.

(Continued)

more trusted underground information sources don't have to survive the same sort of debate and fact-checking that characterizes public debate in more open societies. The absurd and ridiculous can gather great followings and survive far longer than would be possible in a more open society. Correcting such misperceptions will require ingenuity and a sophisticated understanding of the local people, culture, and history.

A key problem with US efforts to reconcile the various sectarian groups in Iraq relates to demographic misperceptions. The US political tract effort in Iraq, as described in National Security Council's *National Strategy for Victory in Iraq*, lays out a democratic structure where the rights and interests of the majority and various minorities are balanced and protected.[16] Unfortunately, such a democratic structure is undermined by a lack of agreement between the groups on even who is in the minority. For example, it is a widespread belief within the Sunni community that they are in fact the majority.[17]

[U3]   Discern what information delivery vehicles work best for each target audience and message

A capability in need of substantial improvement.

For populations that have lived for many years with the "official" reality of a totalitarian regime, conventional media may have no credibility. A new regime can't change overnight decades of conditioning that newspapers print only what the government allows them to print. Methods of communication may be needed that were not exploited by the previous regime. This could include communication technologies banned by a previous regime (e.g., cell phones, e-mail,

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Whatever the technology, be it satellite TV, cell phones, or the Internet, each should be explored for its message-delivery utility.

[16] National Security Council, *National Strategy for Victory in Iraq*, November 2005, pp. 14–18.

[17] "The problems of the Sunnis working legitimately within the political arena have been exacerbated by their wishful thinking on a key issue. Many, including almost all of those with whom I talked, deny they are part of a minority and endorse a goal of returning to dominance." Ahmed S. Hashim, *Insurgency and Counter-Insurgency in Iraq*, (Ithaca, NY: Cornell University Press, 2006), p. 74.

satellite TV), or technologies that are just now affordable to the population, or informal modes of communication (e.g., homemade posters or flyers, slogans painted on walls). If the target is the insurgents, then it needs to be a trusted information source *to them.* Metrics for measuring a message delivery capability would include speed of delivery, cost, needed delivery infrastructure, accuracy of delivery to the target audience, acceptance of the message delivery mode in the eyes of the target, and traceability of the message's true source.

In Iraq, understanding the communications and trust patterns in non-Western societies has proved a major challenge in Iraq. This has been further compounded by the recent embrace of modern communications technologies within those societies (e.g., cell phones, e-mail).[18]

[U4] Monitor the reactions to the US influence efforts, and rapidly adjust as needed (BDA)

A capability in need of substantial improvement.

The effects of influence operations are characterized by many difficult to measure inputs and outputs; nevertheless, measurement is critical to overall success in influence operations.[19] It may not be possible to put hard numbers on the effects generated, but some feedback should be generated. Are the messages being sent reaching the desired segments of the population? Are the messages believed?

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[18]   According to several polls, the US-sponsored Al Hurra satellite TV network, which began broadcasting in February 2004, has not been accepted as a worthwhile information source by Arab audiences. One poll found only 6 percent of Iraqis had watched Al Hurra in the preceding week. Another poll in Cairo found only 8 percent of Al Hurra's viewers thought that the network was trustworthy, as compared to 67 percent for CNN and 86 percent for al-Jazeera. Anne Marie Baylouny, "Alhurra, the Free One: Assessing U.S. Satellite Television in the Middle East," *Strategic Insights*, Volume IV, Issue 11, November 2005, accessed 16 January 2007 at http://www.ccc.nps.navy.mil/si/2005/Nov/baylounyNov05.asp.

[19]   "In the Balkans, Afghanistan, and Iraq, it also proved difficult to measure the effectiveness of the information campaign and to make definitive judgments because there were no agreed measures of performance or effectiveness to support planning and assessment." Michael Baranick, "Learning from History," in *Transforming for Stabilization and Reconstruction Operations*, Hans Binnendijk, Stuart E. Johnson, eds., (Washington, DC: National Defense University Press, 2004), p. 13.

Are the messages changing attitudes, for the better or worse?[20] Does the population see the various messages being sent as consistent with each other and with the actions of US and allied forces? Information on the effects of those messages should then affect message content, delivery, and other actions of US and allied forces.[21] This tracking of effects must pay attention to the communication pathways that matter in each instance. Tracking letters to the editor won't tell much about a population that expresses itself via cell phone text messages and website blogs.

In Iraq, reading reactions to influence operations has proven very difficult.

[U5]   Monitor and evaluate insurgent information efforts

A capability in need of substantial improvement.

This involves determining what messages the insurgents are sending, how they are sending them, who is the intended target of the messages, and how effective are these messages.[22] Is insurgent success or failure isolated to certain groups

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[20]   Soviet and Afghan government ideological "training" of the Afghanis in the 1970s was ineffective, apparently unbeknown to those doing the training. In March 1979, the national government in Kabul decreed a compulsory initiative to teach girls to read, which sparked a bloody revolt by an Afghan Army garrison. Steve Coll, *Ghost Wars: The Secret History of the CIA, Afghanistan, and Bin Laden, From the Soviet Invasion to September 10, 2001*, (New York: Penguin Press, 2004), pp. 39-40.

[21]   CJCS's *Joint Vision 2020* cited BDA (Battle Damage Assessment) for information operations as difficult and in need of attention in future exercises and experimentation. US Department of Defense, Chairman, Joint Chiefs of Staff, *Joint Vision 2020*, (Washington, DC: US Government Printing Office, 2000), p. 36.

[22]   During the April 2004 combat operations in Fallujah, the insurgents would only let Arab cameramen into the city. Predictably, these cameramen shot footage that emphasized the destruction and civilian casualties. Absent their own cameramen onsite, Western media used that same footage. "In the absence of countervailing visual evidence presented by authoritative sources, Al Jazeera shaped the world's understanding of Fallujah without having to counter the scrutiny of informed skeptics. The resulting political pressures constrained military actions both against Fallujah and against Sadr." During the November operations in Fallujah, insurgent leaflets were captured in a mosque. The leaflets showed a Marine tank in flames with the Arabic script "Fallujah – April turning point victory over the Americans."

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or regions?[23] Red influence operations could also foreshadow other Red operations.

While tracking the methods of communication used by Red has seen some success, the greater problem is measuring their effects. "Mirror imaging," where US cultural norms are placed on top of a different culture, is also a problem as the US mindset tends to discount the power of fear in the minds of the population.[24]

[U6]   Map and monitor likely fault lines of conflict between population groups

Most societies have potential fault lines of conflict, be they political, ethnic, economic, tribal, or racial. Knowledge about potential fault lines is essential for anyone to manage them.[25] In many cases, the insurgents may try and revive a history of conflict between groups. Ethnic or sectarian strife can also erupt with-

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Bing West, *No True Glory: A Frontline Account of the Battle for Fallujah*, (New York: Bantam Books, October 2005) pp. 93, 276.

[23] A June 2005 *Washington Post* article described insurgent influence efforts toward recruits in a company of the new Iraqi Army. "Nearly all of the men had received leaflets warning them to quit; the houses of several had been attacked by insurgents." Anthony Shadid and Steve Fainaru, "Building Iraq's Army: Mission Improbable," *Washington Post*, 10 June 2005, p. A01. Another example is the second Chechen war. The Russian government had shut down several websites, giving the Chechen insurgent viewpoint on the war. Anne Aldis, ed., *The Second Chechen War*, (UK: Strategic and Combat Studies Institute, 2000), pp. 114–115.

[24] A November 2005 National Security Council strategy document for Iraq stated the insurgents in Iraq had not mounted a successful campaign to capture the hearts and minds of the population. This misses two points: (1) that simply being Sunni is enough in many parts of Iraq to and (2) for a group willing to be brutal, fear is enough. Both of these factors, while not fitting the mold of how the United States wins hearts and minds, works well in Iraq. National Security Council, *National Strategy for Victory in Iraq*, p. 10.

[25] Nir Rosen spent several years in Iraq after the removal of Saddam. He spoke the language and had extensive contact with insurgents and the population. He wrote the following after talking to a Sunni: "He provided quotes from Sunni clerics stating that anyone who criticized the companions of the Prophet was an infidel, thus Shias were not Muslims. Instead, they were Jews, Christians, and infidels… Ghareeb felt it was important to let Sunnis know about Shias, because many assumed they were actually Muslims. Rosen, *In the Belly of the Green Bird*, p. 184.

out the prodding of insurgents. Historical hostility, economic strains, land disputes, or individual acts of violence being cast in an ethnic or religious light by opportunists can spark wider conflict and instability.

[U7]   Map key individuals within the various groups that might be involved in conflict and influence options *vis-à-vis* those individuals

Within every group there will be leaders with disproportionate influence on the rest of the group. Identifying those individuals and understanding their perspective is an essential first step to dealing with those groups.[26] Some leaders will have goals that clash sharply with US policy (e.g., someone in favor of ethnic cleansing), while others will have goals that align with those of the United States.[27] Once those leaders have been identified, their influence "pressure points" need identification as well. What do they care about, what motivates them, what do they not care about?

[U8]   Understand civilian movement patterns

Understanding civilian movement patterns involves knowing: when/how/where people travel (for any purpose), and when/how/where goods are moved. Local transportation experts should be a good source of this information. If one mode of transportation or one route becomes unavailable or too risky, are there alternatives?

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[26] "The sheikhs simply no longer have control over the young men of their tribes. Indeed, on many occasions sheikhs told me that they have no authority or rewards with which they can exercise control over the young men." Hashim, *Insurgency and Counter-Insurgency in Iraq*, p. 106.

[27] "The United States needs to develop the set of characteristics of indigenous potential leaders to determine whom it can work with and who are the leadership's friends and enemies." Joseph Eash, "Supporting Technologies," in *Transforming for Stabilization and Reconstruction Operations*, Hans Binnendijk, Stuart E. Johnson, eds., (Washington, DC: National Defense University Press, 2004), p. 105.

[U9]   Understand the population's relationship with the government

Does the population support the government, viewing it as both legitimate and effective? If portions of the population do not support the government, how large are those portions and why do they not support the government? Does the dissatisfaction of the population stem from a dysfunctional government?[28] While understanding the nature of that relationship may seem difficult, it is done here in the American political context. The average campaign manager is an expert at measuring a public's attitudes, in near real-time, across a wide range of questions. A careful matching of polling and demographic data, along with careful adherence to sound research principles (e.g., proper screening for bias, carefully worded questions) can quickly generate a fairly accurate picture of public opinion. In some countries, the mode of contact may be less rapid and more labor intensive (e.g., lack of a phone system requires fact-to-face interviews), but the delays in feedback should still be manageable. Of course, any collection effort would need to be culturally attuned, and thus require experts on both data collection and the cultures in question.

[U10]   Map the general entry patterns of foreign insurgents and their transnational movements

If an insurgency is wholly or in part composed of foreign fighters, their entry patterns should be discernable. Foreign fighters pose a unique problem in that their points of origin are often in areas not controlled by US forces. Drying up the supply and sources of these insurgents or disrupting their arrival requires some knowledge about them.[29] Key questions about these foreign fighters are who are

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[28]   After exploring three COIN case studies (Greece, Philippines, Vietnam), D. Michael Shafer wrote, "More important, however, the case studies indicate the need for new, more discerning analytic tools with which to assess intragovernmental constraints on reform (or action) and government-population and insurgent-population relations." Shafer, *Deadly Paradigms*, p. 281.

[29]   A June 2005 *Washington Post* article interviewed several insurgents and those guiding them through Syria. The article provided insights into Syrian government toleration of these movements, tactics of infiltration, and the type of recruits most wanted by the insurgents in

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they, where they are from, what or who motivates them, how did they get here, where is their support coming from, and who helped them get here.

[U11] Map the foreign and domestic financial support network of the insurgents

Like any other military or political organizations, insurgencies require financial support.[30] Most full-time personnel will be unpaid, and many weapons and supplies will be donated by outside supporters or captured from the enemy. However, there will always be a need for money to procure items not donated or captured, and for subcontracting some tasks (e.g., emplacing improvised explosive devices or IEDs). Money can also help buy influence or access via corrupt HNG personnel or officials, or to even generate international support for the insurgency or counterinsurgency efforts. This financial support can be generated several ways. Legal businesses can generate funding, as can extortion, kidnapping or tapping friendly populations, organizations, or governments. Another source could be leftover funds from a past regime.

Money is always easier to move than other material, especially with the globalization of commerce and banking, so these fundraising sources can be located anywhere. A sympathetic government or generous *diaspora* could be located several continents away.[31]

Iraq. Ghaith Abdul-Ahad, "Outside Iraq But Deep in the Fight," *Washington Post*, 8 June 2005, p. A01. *See also* Edith M. Lederer, "Syria Arrests 1,200 Headed for Iraq," Associated Press, 26 May 2005, accessed 26 May 2005 at www.washingtonpost.com.

[30] For an insider's description of the complex US efforts to fund the Contras in Nicaragua in the 1980s, *see* Robert M. Gates. *From the Shadows: The Ultimate Insider's Story of Five Presidents and How They Won the Cold War*, (New York: Simon & Schuster, 1996), pp. 311–316. "From the beginning of the Afghan jihad, Saudi intelligence used religious charities to support its own unilateral operations." Coll, *Ghost Wars*, p. 86.

[31] Supporting an insurgency can be a very cost-effective way to tax a foe. In early 1984, internal CIA estimates were that the US investment of $200 million equated to $12 billion in direct Soviet expenses in Afghanistan. For a detailed look at US funding support for the mujahidin in Afghanistan, *see* Coll, *Ghost Wars*, p. 89, passim. *See also* Gates, *From the Shadows*, pp. 319–323.

Mapping the sources and movement of this funding will require a sophisticated understanding of international finance, Internet fundraising, the cooperation of many governments, and an understanding of sub-national groups that may sympathize with the insurgents (e.g., international charities, ethnic groups, religious groups). As the Internet revolutionized mass communication, it is now far cheaper to reach masses of people and collect funds from them. Today's information technology and the global network of financial institutions have made geography almost irrelevant. Tracking those electronic movements requires personnel who know that world and software tools to make sense of it all. Although geography plays a much diminished role, it still matters for accessing banking records. The banking system used by an insurgency to move its money could be located in a country not willing to cooperate with the IW effort. Because the money can be moved through the banking systems of many nations, the cooperation of many states may be needed. While getting that cooperation may prove challenging, it is somewhat easier because that sort of cooperation can be covert, and thus less problematic for some states.

[U12]   Map insurgent force size and capabilities

A capability in need of substantial improvement.

How large is the insurgent force and how well trained? How advanced are their weapons? These are important questions in sizing up an insurgent opponent. A large insurgent force can operate across wide areas simultaneously or can siege and even overrun major bases. The effectiveness of that force will vary considerably with the quality of their training and weapons. Are new insurgent recruits thrown directly into combat or do they receive some training first? Do the insurgent personnel have previous military experience?[32] Do the insurgents have sophisticated weapons, like MANPAD (man-portable air defense), long-range wire-guided anti-tank missiles, explosively formed projectile mines? The acquisition of

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[32]   Some of the Chechen insurgents battling in Groznyy in 1995 were better trained and more experienced than some of the Russian Army conscripts they fought. This subset of the insurgents was ex-Soviet Army and had fought in Afghanistan.

the Stinger missile by mujahidin forces in Afghanistan in the mid-1980s showed how dramatic an effect one weapon system could have.[33]

Even defining who is an insurgent or an insurgent supporter in the population has proven difficult in Iraq.[34] As many criminal acts look similar to insurgent acts, distinguishing by behavior has also been difficult. The demise of the insurgency has been prematurely pronounced on several occasions by senior US leaders.[35]

[U13] Map insurgent combat operations, movement patterns, and logistics

A capability in need of substantial improvement.

How an insurgent organization fights, moves, and supplies itself is all important. For insurgent combat operations, some patterns to note include size and type of attacking force, typical weapons, attack timing, tactics, demonstrated proficiencies, degree of coordination, preference for direct or indirect attack, and typical targets.[36] Insurgent movement patterns could include size (moving in

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[33] The Afghan insurgents first used Stingers in September 1986. In January 1987, the senior CIA officer in Afghanistan reported back that the introduction of Stingers was the most significant development on the battlefield in the previous six months. According to then-CIA Deputy Director Robert Gates, "There is little question that providing the Stinger was a major turning point in the Afghan war." Gates, *From the Shadows*, pp. 350, 430.

[34] In August 2003, the commander of US forces in Iraq, LTG Ricardo Sanchez, USA, stated more troops would not help as intelligence was the key shortfall. Steven R. Hurst, "U.S. Commander: Force Size Is Adequate for Iraq," Associated Press, 28 August 2003, accessed 29 August 2003 at www.washingtonpost.com.

[35] Deputy Secretary of Defense Paul Wolfowitz in July 2003: "The direction is pretty clear. It is toward a more secure Iraq." Vice President Cheney in June 2005: "We're making major progress. Iraq is in the last throes, if you will, of the insurgency." Hashim, *Insurgency and Counter-Insurgency in Iraq*, pp. 57–59.

[36] In February 1986, the National Security Council approved Stinger and TOW (tube launched, optically tracked, wire-guided) anti-tank missiles for the UNITA rebels in Angola. The excellent performance of the Stinger missiles helped overcome resistance in the US Government to providing them to the mujahidin in Afghanistan. Gates, *From the Shadows*, p. 347. Unlike most other mujahidin leaders in Afghanistan, Abdul Haq operated extensively in urban areas.

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small or large groups), mode of transport, time of movement (relevant to time of day or night and attacks), destinations, and transit areas. Logistical patterns could include sources of supply, support needs, mode of movement, and movement routes.[37]

Discerning these patterns is difficult for several reasons. First, the opaque nature of insurgent organizations makes it difficult to "see" an action and to correctly attribute actions to actors. Was that an insurgent-inspired bank robbery or a routine bank robbery by common criminals? Second, the slower pace of operations in insurgencies may require a longer period of observation before patterns emerge. Third, insurgencies can involve multiple parties, so matching actions to specific subgroups can be difficult.[38]

Mapping these patterns will require careful observation, record keeping, and analysis over extended periods of time.[39] Individual events need to be merged into a larger central database where analysis can extract the patterns. Because the observations and data on these various events are likely to be distributed across many organizations, it will important to bridge those organizational boundaries and collect all the relevant data. The definition of "relevant data" should be broad as many events in isolation may not seem significant but when merged with other data the patterns emerge. Access to these centralized databases needs to balance security concerns with allowing a broad range of experts access. Getting a standardized collection of all relevant events will be difficult because doing so will

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In the 1980s, he gradually built up a network of several hundred safe houses in Kabul. Kaplan, *Soldiers of God*, pp. 60–61, 158.

[37] The famous Afghani insurgent leader Ahmed Shah Massoud told a journalist visiting him in Afghanistan in 1981, "We do not regard an attack against a convoy successful, even if we destroy many trucks or tanks, unless we bring back supplies." Coll, *Ghost* Wars, p.116.

[38] In reference to Fallujah: "There were two types of enemy, the jahadist isolationist and the Main Guard. The Jihadist hid in back rooms, prepared to fight to the death. In contrast, the Main Guard possessed more military training and employed a mobile defense." West, *No True Glory*, p. 269.

[39] One source cites UAVs (unmanned aerial vehicles) as the best US Marine Corps tool for tracking insurgent vehicle and personnel movements in Fallujah to specific safe houses. West, *No True Glory*, p. 229.

cross Service, agency, coalition, and non-governmental boundaries.[40] A number of collection opportunities present themselves with insurgent logistical systems. As both the same physical battlespace, Blue has more access to Red's logistical system in IW than in conventional conflicts.

The greatest weaknesses in Iraq in this area are the sharing of intelligence across unit, Service, agency, and allied boundaries, and the attribution of actions to specific actors (which Red group, or Red versus criminals, or Red versus rogue HNG police or military).[41]

[U14]   Map insurgent command structure, leadership, and motivations and goals

The naturally stealthy structure of insurgent organizations makes mapping them difficult.[42] An insurgency in a given region may in fact contain multiple command structures, one for each insurgent group. Using "the" to describe the insurgency's command structure is only valid when *all* the insurgents obey one

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[40]   An historical example would be the Battle for the Atlantic in World War II. In spite of their World War I experience with German submarines, the British still took a long time to merge and analyze the various sources of data into their Operational Intelligence Center. The establishment of "norms" of German actions was an important first step to winning that battle. Patrick Beesly, *Very Special Intelligence: The Story of the Admiralty's Operational Intelligence Center 1939–1945*, (London: Greenhill, 2000), p. 41.

[41]   *See* footnote 35 (Hurst, "U.S. Commander"). Only 40 percent of Iraq's pre-war weapons inventory had been destroyed or secured by April 2004. Steve Bowman, *Iraq: U.S. Military Operations*, Congressional Research Service, 18 May 2005, p. 7.

[42]   In 1956, the French executed a daring capture of four leaders of the Algerian Front de Libération Nationale (FLN) insurgent movement. The leaders were on the way to a conference of newly independent North African nations in Morocco; the French had their aircraft diverted to an airfield in Algeria. They were arrested and held in a French prison for the next five and half years without trial. Unknown to the French, the arrests benefited the FLN. The four leaders captured were all the top leaders of one faction of the movement then in dispute with another. So while the surviving FLN leadership publicly condemned the French action, privately they were relived that the French had spared them an internal fight. Because of a lack of knowledge about the internal dynamics of the FLN, the French action ended up strengthening the insurgents. Alistair Horne, *A Savage War of Peace: Algeria 1954–1962*, (New York: History Book Club, 2002), pp. 158–161.

central command structure.[43] Insurgent command structures are often more dispersed geographically than those of conventional militaries. There may be no physical headquarters but rather a network of personal relationships among individuals constantly on the move, maintained through infrequent communication. The less formal nature of an insurgent organization may allow it to change rapidly to reflect changing battlefield conditions, minus the need to first change some official doctrine via a bureaucratic process.[44]

Identifying the insurgent leadership of each group will be equally difficult. Their physical appearance, role, military and ideological tendencies, history, and even real names will all be a challenge to discern. Motivation and goals will be the most difficult to discern because they involve more of the emotional and mental than physical. Within an insurgent group, the personal motivations of the various members can vary widely.[45] However, across the entire group the goals will likely be a relatively short list, some stated and some unstated. An insurgent group may state certain goals for the purpose of gathering internal or external support while having little real interest in achieving them. Examples of goals could be na-

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[43] The groups in an insurgency do not have to be politically united to succeed; a good example of this being Afghanistan. Then senior CIA official Robert Gates had this to say about the mujahidin groups receiving major increases in US funding in the mid-1980s: "No one should have had any illusions about these people coming together politically—before or after a Soviet defeat. Certainly no one at CIA had such fantasies." Gates, *From the Shadows*, p. 348.

[44] Regarding future fourth-generation warfare foes: "Potential enemies are not hampered by an entrenched bureaucracy. They are free to exploit the full range of commercially available information technology." Col Thomas X. Hammes, US Marine Corps, *The Sling and the Stone: On War in the 21st Century*, (St. Paul, MN: Zenith Press, 2004), p. 195.

[45] The hostility of various terrorist or insurgent groups toward the United States is often portrayed in the media as the product of ignorance, the implication being that awareness undermines hostility. That is not always the case. One particular Egyptian radical, Sayyed Qutb, developed his greatest hostility toward the United States *after* a year-long stay in Colorado in 1948. His writings were to have influence long after his death in 1966. Coll, *Ghost Wars*, pp. 112–113.

tional unification, independence, ideological change, ethnic dominance or purity, economic change, or return to power.[46]

[U15]   Discern the level and nature of insurgent-civilian interaction

A capability in need of substantial improvement.

Knowing how insurgents interact with the population in various areas is important for crafting an effective counter.[47] Some key questions are, is the population cooperating with the insurgents, what is the nature of that cooperation (intelligence gathering, logistical support, active participation, all of the above), what motives are behind the population's actions (fear, nationalism, economic gain[48], ethnic affiliation[49], religion, actions of US forces); and if the population is not cooperating with the insurgents, what motivation is behind that.[50] In some cases, the population will be supportive of the United States as long as they have security. In other cases, the population will not be friendly toward the United States but the possibility is good of changing that in the near term. In the extreme case, some

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[46] "…it can be argued that the insurgency's virulence also stems from a successful fusion of nationalist and religious sentiment among the Sunni Arabs of Iraq. This is a critical factor that is missed. We often view religion and nationalism as polar opposites." Hashim, *Insurgency and Counter-Insurgency in Iraq*, p. 120.

[47] In Vietnam the government and US aid programs were not contingent on behavior, while the Viet Cong programs were. This resulted in the ironic result of those government and US aid programs making it easier for the population to pay off the Viet Cong. Shafer, *Deadly Paradigms*, p. 263.

[48] From a variety of intelligences sources, US forces stationed around Fallujah learned that the insurgents were paying the locals $50 to be a lookout, $100 to dig a hole for an IED, and $200 to trigger an IED. West, *No True Glory*, p. 30.

[49] Ahmed S. Hashim, who spent several years in Iraq working with the US military, argues that the insurgency in Iraq enjoys widespread support in the Sunni community. Hashim, *Insurgency and Counter-Insurgency in Iraq*, p. 131.

[50] In the later years of US operations in Vietnam, US forces used the Hamlet Evaluation System to chart the progress of pacification. Based on a detailed list of questions for US advisors working in and around a given hamlet, each hamlet was rated A, B, C, D, E, or "VC." A, B, and C were used to denote relatively secure areas; D and E were contested; and "VC" was controlled by the Viet Cong. Lewis Sorley, *A Better War: The Unexamined Victories and Final Tragedy of America's Last Years in Vietnam*, New York: Harcourt, 1999, pp. 70–71.

populations will be overtly hostile to US forces and their attitudes will not be changeable in the near term.[51]

This lack of understanding about the effects that insurgent operations have on population behavior and attitudes has been a central shortfall in US Government capability in Iraq. The rough category of "fence-sitter" is often used to describe blocks of the population whose motivations vary widely and are poorly understood.[52]

[U17]   Map the insurgent community for internal fault lines and perceptions

Insurgent groups are rarely homogeneous monoliths without internal differences.[53] Those differences might be ideological, economic, ethnic, religious, or personality driven. What are the concerns or desires of any given leader or group

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[51]   *See* footnote 29 (Shafer, *Deadly Paradigms*).

[52]   A 2005 article, co-authored by a US Army major general with experience in Iraq, broke out the Iraqi population into three groups: anti-Iraqi forces, supporters of Blue, and fence-sitters. However, such a break-down lacks sufficient granularity as it doesn't break down the fence-sitters by motivation—a critical distinction that sharply changes how they should be handled by Blue. A portion of the population that appears neutral could be either supporters of Red or Blue but are remaining passive because of fear. Major General Peter W. Chiarelli and Major Patrick R. Michaelis, "Winning the Peace: The Requirements for Full-Spectrum Operations," *Military Review* (July-August 2005), pp. 1–14.

[53]   Over time the Chechen insurgency saw an infusion of foreign Islamic fighters. "A major rift had just opened in Chechen society between the pure and unclean—and between the majority of local Chechens who only wanted to rebuild their shattered lives, and the Wahhabi outlanders who had arrived to cleanse Chechnya first of the godless Russians, and next of apostates, before then maybe exporting their pristine version of Islam and attendant holy war to neighboring territories, such as Dagestan." Thomas Goltz, *Chechnya Dairy: A War Correspondent's Story of Surviving the War in Chechnya*, (New York: St. Martin's Press, 2003), p. 225. In Afghanistan, Pakistani intelligence personnel found a stark difference in the attitudes of the Afghanis and Arab volunteers toward suicide missions. Another point, sometimes sparking violent disagreements between the Afghanis and Arabs, was Afghani graves. What the Afghanis saw as a respectful shrine to a deceased relative, the Arab volunteers saw as an idol in violation of the precepts of Islam. Coll, *Ghost Wars*, pp. 134, 152–153.

for the direction of the insurgency?[54] Does one group want to target civilians while another doesn't?[55] Are some insurgents Sunni while others are Shia? Can the insurgent community be divided by length of involvement, e.g., old hands versus the new recruits? [56] Do the insurgent leaders or rank and file have any perceptions worth attacking?

[U20]   Understand the capabilities of foreign members of Blue and the roles they wish to play

IW is complex in part because of the many actors on the Blue team. Aside from the US military, there will likely be other US Government agencies, NGOs, international organizations, and allies. Of course, the Blue team is a volunteer-only outfit, so an organization must want to participate to matter. To properly tap the wide range of capabilities each Blue actor brings to the effort requires a tremendous degree of coordination. That coordination is virtually impossible without an understanding of (1) the expertise of their personnel, (2) their overall resources, (3) any past experience working in the current area of interest, and (4) their ability and willingness to coordinate with the other members of Blue.[57]

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[54]   In reference to Fallujah: "Inside the insurgent movement the fundamentalist clerics in the city were competing with the former regime elements who had previously dominated them. Saddam's ignominious capture had shifted the balance of power toward the Jihadist without weakening the intensity of the insurgency." West, *No True Glory*, p. 35.

[55]   Ahmed S. Hashim, who spent several years in Iraq working with the US military, describes fissures opening between the more nationalist Iraqi insurgents and the foreign jihadist. Targeting both Shia and civilians did not sit well with the indigenous Iraqis. Hashim, *Insurgency and Counter-Insurgency in Iraq*, pp. 209–211.

[56]   In 1958, French agents who had penetrated the FLN insurgency in Algeria discovered some rifts. To exploit those rifts, French agents began planting forged documents on the bodies of killed rebels, documents that implicated them as colluding with the French. It was later learned that the FLN lost many of its best people to the purges sparked by these planted documents. Horne, *A Savage War of Peace*, pp. 260–261.

[57]   A 2004 National Defense University study recommend the administration identify countries with niche capabilities useful for R&S operations. The study also included a two-page chart detailing niche S&R capabilities by nation. *Transforming for Stabilization and Reconstruction Operations*, Hans Binnendijk, Stuart E. Johnson, eds., (Washington, DC: National Defense University Press, 2004), pp. 124-125, 130.

[U21]   Understand the host government's plan for dealing with the insurgency

What has the host government done to deal with the insurgency and what does it plan to do? Do those plans appear feasible? Are there substantial differences in the host government's philosophy on IW with that of the United States? In some cases, the HNG may be committed to a course of action incompatible to what the United States thinks is necessary. That lack of synchronization between the host nation and the United States will cripple an IW campaign.

[U22]   Map the powerful individuals and departments in the host government and their interests and motivations

Who are the most powerful people and departments in the government?[58] Where do they want to take the country and what changes to the status quo would they view as threatening?[59] Do they have economic interests in the status quo that preclude economic reform? To what degree do personal networks determine both government policy and appointments? Who is related to whom? Are there governmental reforms the population wants that the people in government are strongly against? Knowledge of the personalities and interests of the host nation government is an important when crafting an effective IW campaign. Some strategies that may make sense on paper may not survive first contact with the host government. In some cases, the people in the host nation government may preclude any effective IW campaign.[60]

[U27]   Discriminate the insurgents from the civilian population

A capability in need of substantial improvement.

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[58]   "The United States needs to develop the set of characteristics of indigenous potential leaders to determine whom it can work with and who are the leadership's friends and enemies." Eash, "Supporting Technologies," p. 105.

[59]   The Soviets had considerable difficulty understanding both the motivations and capabilities of the Communist government in Kabul in the 1970s and 1980s. Kabul's interpretation of Marxism differed from Moscow's, along with how to apply it to Afghanistan. Coll, *Ghost Wars*, pp. 41–42.

[60]   *See* footnote 29 (Shafer, *Deadly Paradigms*).

Poor discrimination between the insurgents and the population has several serious side effects. First, some innocent civilians will be mistaken for insurgents and killed, wounded, or detained. Few recruitment tools in the insurgent arsenal can compete with unjust imprisonment or death of civilians by Blue. In the IW classic, *A Savage War of Peace: Algeria 1954-1962*, Alistair Horne recounted the reaction of one Algerian to false imprisonment:

> Ben Youssef Ben Khedda, a pharmacist whose hands were clean, wrote a joint letter to the *Alger Républicain* complaining about the blind arrests. Two days later he too was in prison, followed shortly by his fellow signatories; immediately he was released; five months later, he joined the F.L.N.[61]

Second, failure to discriminate also cedes initiative to the insurgents. Friendly forces wait for insurgent activity before reacting, putting them one step behind. The insurgents decide when and where the fight occurs, often breaking contact at will by blending back into the population.[62]

Third, failure to discriminate makes it easier for insurgents to join indigenous security organizations, undermining operations and compromising intelligence. If the indigenous security organizations are infiltrated to any significant degree, this will seriously inhibit cooperation between them and US organizations.

The ability to discriminate civilian from insurgent could come about several ways. One approach would be the ability to discern an individual's identity

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[61] Horne cites the French reaction to the initial insurgency as typical for most colonial administrations: "First comes the mass indiscriminate round-up of suspects, most of them innocent but converted into ardent militants by the fact of their imprisonment…" Horne, *A Savage War of Peace*, pp. 96–97.

[62] During the April 2004 operations in Fallujah, the insurgents would stash weapons in various buildings, rushing between fighting positions unarmed. If any one position became too endangered by US forces, the insurgents would exit and quickly blend in with the civilian population as most wore no distinctive clothing. The marines lacked any chemical test kits to see if any of the men they caught had recently fired a weapon, so they would have to release them if they were not caught with a weapon. West, *No True Glory*, p. 102.

and then match that to a list of known insurgents.[63] Both pieces have to function for this to work; by itself, neither piece of information is worth much. The individual identification needs to have a very low error rate, of either false-positives or false-negatives. False-positives are probably the most damaging as they produce ill will from the population. The ability to identify someone not in custody is highly preferable. This would allow a dramatically larger proportion of the population to be screened. Whatever scanning process is used, the less effect it has on the population, the better. If the population feels either inconvenienced, or violated, the scale of this scanning will have to be curtailed. Ideally, this scanning process would be invisible to both the public and insurgents. The ability to scan at long range is not essential if the sensors involved are inconspicuous and not too expensive, thus facilitating extensive emplacement around populated areas. The utility of the list of known insurgents will be proportional to its completeness, accuracy, and the ability to share the list with all who need access.

A second approach would be tracking actions like IED emplacement, sniping, firing mortars, meeting with other known insurgents, or frequenting locations used by the insurgents. Tying an individual to a particular action could be accomplished through direct observation or evidence on the person of involvement. For example, a person emplacing IEDs might be detected by traces of explosives found on his clothing. Some actions will generate more traceable evidence of in-

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[63] After Fallujah was cleared of insurgents in November 2004 Iraqi males of military age were not let back into the city until they had been issued identification cards and been fingerprinted and given retinal scans. West, *No True Glory*, p. 317. *See also* Ann Scott Tyson, "Increased Security in Fallujah Slows Efforts to Rebuild," *Washington Post*, 19 April 2005, p. A15. There were several key shortfalls in the retinal scanning effort. The first was a lack of a real-time link between the checkpoints scanning the Iraqis and the main database. Marines could return to base at night, to download the day's scans, only to find several names matching a scan taken earlier. Another limitation was that scanning was only done at the checkpoints on the roads leading into town. There were no barriers or checkpoints connecting those on the roads, so individuals could bypass the scanning process by walking into town away from a road. Interview with Major Robert Castro, USMC, who was present in Fallujah in early 2005, September 2006.

volvement than others. One option would be to find ways to increase the involvement signature for clearly insurgent activities.[64]

For either method of discriminating insurgents, the following metrics apply: detection range, need for line of sight, inconvenience to the population, stealth of both the sensor and scanning process, cost per system (low cost equals large inventory), mobility, maintenance requirements, error rate, time required to scan, insurgent database completeness (and rapidity of update), insurgent database accuracy, and accessibility of database.

To the US forces, the mass of the Iraq population is opaque—individual identities are usually not known and rarely verifiable. The Iraqis who work for the Coalition have greater visibility but they represent a small portion of the overall population.

[U35]   Map the physical terrain

The physical terrain in which Red, Blue, and the civilian population exist is an important constraint on each. The more rugged, isolated (i.e., few transportation options), and foliage-covered the terrain is, the easier it is for Red personnel to survive and operate. Blue is favored by less foliage and extensive road networks, where Blue airborne and space sensors can see more and its vehicles can better move. The population's needs and wants are substantially affected by the geography and weather. Examples of what this mapping should include are geog-

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[64]   A low-tech example would be the commercial "theft detection powders" available to the general public. They can be applied to an object; anyone subsequently touching that object is detectable afterward. Some powders react to oils in the skin, turning that skin an unnatural, i.e., different, color for several days. Others are more covert, dusting the offender with an ultraviolet power that's detectable only under ultraviolet light. For an example, see the Shomer-Tec Law Enforcement and Military Equipment website, "Ultraviolet Thief Detection Powder," at http://www.shomer-tec.com/site/product.cfm?id=99883D6B-DD38-D169-91110 800829CC328, accessed 02 June 2005.

raphy, weather, foliage, geology, transportation networks, demographics, and man-made structures.[65]

Troops operating in the urban environment need a capability to rapidly generate three-dimensional digital maps on demand. These maps need to be three dimension so troops can plan how best to clear a building or plot their way to a specific point in the building. These maps need to be in a digital format so they can be moved quickly from producer to consumer, and updated frequently.[66] Many areas of the urban landscape will not need mapping to this level of granularity, but knowing which areas will need this level in the future is difficult. Thus, the capability to generate rapidly these maps on demand is important.[67]

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[65] On 23 March 23 2003, as part of the initial drive on Baghdad, numerous Marine vehicles became immobilized in a mud bog in Nasiriyah. On the surface, it looked like any other dirt street but none of their maps portrayed the undercrust of sewage sludge. Seven vehicles became immobilized, including three Abrams tanks, for about five hours. During this time, they were in contact with the enemy, and some tank commanders had to defend their vehicles with pistol fire. During that time, these vehicles were badly needed to relieve an infantry company in heavy contact a few kilometers to the north. The infantry company suffered serious losses, including 18 KIAs, around this period. Tim Pritchard, *Ambush Alley: The Most Extraordinary Battle of the Iraq War*, (New York: Ballantine, 2005), pp. 73–75. On 24 March 2006, an Abrams tank fell fifteen feet into a canal when the bridge it was on collapsed. The tank crew didn't know if the bridge could hold their vehicle. US Army, *On Point: The United States Army in Operation Iraqi Freedom*, p. 32, accessed 07 August 2007 at http://www.globalsecurity.org/military/library/report/2004/onpoint/.

[66] The armored units conducting the "thunder runs" in Baghdad in April 2003 had considerable difficulties getting good quality maps. Some of the problems they encountered were a lack of civilian markings on their maps to compare with local signage; not knowing the height of Iraqi buildings could facilitate attacks on the tops of the armored vehicles. David Zucchino, *Thunder Run: The Armored Strike to Capture Baghdad*, (New York: Atlantic Monthly Press, 2004), pp. 9, 93.

[67] For a detailed description of the problems and possible solutions to three-dimensional urban modeling, see Alan Vick et al., *Aerospace Operations in Urban Environments*, (Santa Monica, CA: RAND Corporation, 2000), pp. 150–164. Through a 1999 Joint Staff study survey, the commanders in chief (CINCs) described the shortcomings in databases and map products for use in MOUT (Military Operations in Urban Terrain) as "substantial." US Department of Defense, Joint Staff, *Joint Warfighting Capabilities Assessment: Phase One Urban Operations Study*, (Washington, DC: US Government Printing Office, 1999), p. 4-4.

In some cases, the needed information (e.g., electronic blueprints) may already exist and simply require collection and delivery to the interested parties.[68] However, in many cases, the information will not exist and sensors will need to generate it. Metrics for this capability could include map accuracy, speed of map creation, speed of map delivery, level of interior detail (e.g., building materials, occupants at time of mapping, direction doors open), stealth of mapping sensors (is it obvious a building is being mapped?).

[U39]   Precisely discern an individual's identity

A capability in need of substantial improvement.

So often in IW, the identity of individuals in the population is defined by either who they say they are, or who some other individual says they are. Government security forces or other members of the Blue team are often unable to confirm independently a given identity. *This is a critical weakness.* The current efforts in Iraq using biometrics to identify individuals fall well short of need in both scale and coordination across organizational boundaries.[69]

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[68] On some occasions, the problem was simply identifying the function of a building or where a specific building was located. In one instance, one of the first armor units in Baghdad in April 2003 was taking fire from a cluster of buildings. While trying to determine from which building the fire was coming, an embedded reporter mentioned that general area was also home to the Palestine Hotel where many foreign journalists were staying. However, neither the reporter nor US personnel could identify the exact location of the hotel. The efforts to locate precisely the hotel included calling back to the United States via satellite phone, calling to Jordan via satellite phone, and e-mailing a journalist believed to be staying there. All these efforts failed to locate precisely the Palestine Hotel before a 120mm tank round struck it. Zucchino, *Thunder Run*, p. 298–301.

[69] A report on Abu Ghraib found serious shortfalls with the ability of US detention facilities to track the identities of their detainees. James R. Schlesinger, Chairman, *Final Report of the Independent Panel to Review DoD Detention Operations*, August 2004, pp. 60–61. According to the residents in one village, US forces had arrested all their men in an effort to find one man. The former Ba'ath Party official was known to the US forces by name only, so they ended up arresting all the men they found, eighty-three in all. Aaron Glantz, *How American Lost Iraq*, (New York: Penguin, 2005), pp. 137–142.

[S1] Coordinate "the message" with tactical and operational actions

A capability in need of substantial improvement.

Influence operations can cancel out at times the effects of tactical and operational actions, or vice versa, if there is not careful coordination. This requires the organizations responsible for each to work closely together.[70] At least in the eyes of the Iraqis, many examples exist of "the message" diverging from tactical actions. US spokesmen say the United States presence in Iraq is not permanent, but the extensive base structure built to support US forces does not appear temporary to many Iraqi citizens.

[S2] Provide security to vulnerable groups

A capability in need of substantial improvement.

Insurgents often exploit societal fault lines, either by attacking a group or inciting violence between groups. Some key questions: Are the insurgents directly attacking any groups? Are they attempting to disguise their attacks as coming from some other group? What insurgent influence operations are ongoing in this area? Even absent inflammatory efforts by the insurgents, a Blue influence campaign may be needed to calm tensions and facilitate other mediation efforts.

Beyond the influence aspect is providing physical security for the threatened group. The shape and size of that physical security will vary by scenario. In

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[70] In March 2006, a joint US-Iraqi raid on an insurgent hideout was called a success by US military spokesmen because many insurgents were killed. After the raid, however, US forces left the site, considering the operation over. Insurgents subsequently accessed the site and staged "evidence" to back up their version of events—that the US-Iraqi forces targeted unarmed worshipers in a mosque. This different story was then backed up by photographic "evidence" from the insurgents, evidence that the United States didn't have. Jonathan Finer, and Naseer Nouri, "U.S. Officials Defend Raid Following Shiite Backlash," *Washington Post*, 28 March 2006, p. A01. "However, military power employed in isolation from a psychological program designed to undermine the rejectionists' legitimacy will not work." Douglas Macgregor, "New Strategic Concepts," in *Transforming for Stabilization and Reconstruction Operations*, Hans Binnendijk, Stuart E. Johnson, eds., (Washington, DC: National Defense University Press, 2004), p. 25.

some cases, it might involve assisting a group in better protecting itself or relocating a group to a more secure area. Too many vulnerable groups have no consistent protection. Three examples would be the Sunni in Baghdad, Arabs in Kirkuk, and the Yazidi near the Syrian border.

[S3]   Include in planning issues important for transition

A capability in need of substantial improvement.

Transition is essential for success, and ad hoc transition is such a bad combination as to be considered a borderline oxymoron. The complex problem and solution sets involved in building up indigenous capabilities require extensive coordination and planning that should begin well before US troops arrive. The indigenous buildup is required so foreign Blue entities can depart. The absolute strength of the host government is less important than its relative strength *vis-à-vis* the insurgents.

Societies aren't built overnight, and those built without careful planning show it. Many of the activities required to strengthen indigenous capabilities require the participation of many different members of the Blue team.[71] Many of these transition activities also require extensive resources often allocated over many years. While plans will need to adapt, as conditions change and the arrival of US personnel allows further clarification of the conditions, initial planning is still essential.[72]

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[71] The 2006 *Quadrennial Defense Review Report* recommended the expansion of training programs to accommodate planners from other agencies. US Department of Defense, *Quadrennial Defense Review Report*, 6 February 2006, p. 87.

[72] "The brigade [800th MP Brigade] was given additional tasks assisting the Coalition Provisional Authority (CPA) in reconstructing the Iraqi corrections system, a mission they had neither planned for nor anticipated." "The current military police organizational structure does not address the detention mission on the nonlinear battlefield characteristic of the Global War on Terror." "Attention should also be given to preparing for conditions in which normal law enforcement has broken down in an occupied or failed state." Schlesinger, *Final Report*, pp. 54, 56, 90. "Of an active-duty force of roughly 500,000 soldiers, only about 1,000 are certified for prison guard duty, and the vast majority of them are posted in stateside military

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Aside from delays simply requiring DoD to remain in-theater longer, delay also taxes the limited patience of the population. A population will stand only so many mistakes and so much time before branding a non-indigenous force as an occupier. Once that occurs, it won't matter how well intentioned Blue is. The expansive list of enduring transition problems in Iraq demonstrates that even a superpower can't "nation-build" in an ad hoc manner.[73]

[S4] Coordinate ongoing operations with non-DoD as needed

A major determinate in the overall efficiency of the IW campaign will be the degree to which the large number of players coordinate and cooperate. From DoD's perspective, it will need to synchronize what it does with many of these actors, especially with the host government.[74] This requirement is driven by the two main factors, the first being the key role of security in IW. Without the security often supplied by DoD, all other missions would be severely disrupted. The second factor is DoD's mass. DoD is such a large organization that even its non-combat actions will have real effects on the rest of the Blue team.

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prisons." Dave Moniz and Peter Eisler, "U.S. Missed Need for Prison Personnel in War Plans," *USA Today*, 15 June 2004, p. 8.

[73] The head of the Office of Reconstruction and Humanitarian Assistance (ORHA), Jay Garner, had not even heard of the US State Department's Future of Iraq Project, or seen its 2,500 pages of reports, until two months (21 February 2003) before he arrived in Iraq (21 April 2003). Rajiv Chandrasekaran, *Imperial Life in the Emerald City*, (New York: Knopf, 2006), pp. 36–37.

[74] According to one source, the closure of Al Jazeera's bureau in Iraq by Prime Minister Allawi in September 2004 was preparation for the final assault on Fallujah that occurred a few months later. West, *No True Glory*, p. 250. Marines in one unit in Vietnam found their intelligence collection efforts were conflicting with those of the local police efforts. The Marines had been paying money for tips, only to find out the rate they were paying undercut the rate paid by the local police who had better connections to the population and more success overall in intelligence collection. The Marines discontinued their payment scheme. West, *The Village*, p. 284. In most cases, the indigenous government will be the single most important player on the Blue team. This importance derives mainly from four factors: (1) mass, (2) duration, (3) legitimacy, and (4) the need to transition other Blue team activities to the same government.

An essential partner for DoD will be the indigenous police forces. Their greater cultural understanding, relations with the population, and persistence make them a critical partner for DoD when dealing with the insurgents.[75] Another example would be between DoD as a provider of security, and other entities repairing infrastructure. If DoD and these other entities fail to coordinate, the repair effort could either fail or proceed far less efficiently.[76]

Key questions include the following: Which organizations are working what missions in each area?[77] Who are the key points of contact within those organizations?[78] What mode of communication works best with these points of con-

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[75] In Vietnam, some Marine personnel were embedded in small groups (around ten to twenty personnel) in specific villages. They formed Combined Action Platoons (CAP) with local forces and worked closely with the local police. "Over a period of time the police had pieced together a thick book listing Viet Cong known to be working in or near the village. When translated, the book provided close-up portraits of the enemy soldiers." "In his intelligence file, Thanh also had listed nonfighting members of the Viet Cong organization who still resided in the village, former members of front committees who were temporarily inactive, but who still might occasionally help the Viet Cong either because of threats or promises of reward, or out of loyalty." West, *The Village*, pp. 102-104.

[76] "All elements of S&R [stability and reconstruction] forces, including representatives from the interagency community, nongovernmental organizations, and coalition militaries, should train and exercise together periodically." Leigh Caraher, "Broadening Military Culture," in *Transforming for Stabilization and Reconstruction Operations*, Hans Binnendijk, Stuart E. Johnson, eds., (Washington, DC: National Defense University Press, 2004), p. 95.

[77] Interagency barriers within the US Government can be significant impediments to coordination. In 2003, the CPA senior advisor for higher education contacted a US Agency for International Development (USAID) officer to learn about what efforts USAID was undertaking to improve the Iraqi higher-education system. The senior advisor was told that grants had been earmarked for various US universities to work with Iraqi universities. When he asked to see those proposals, he was told by the USAID officer he wasn't authorized to share them. Only when the CPA official threatened to file a Freedom of Information Act request did USAID produce the documents. Chandrasekaran, *Imperial Life*, pp. 280-281.

[78] In some cases, communication will need to be indirect because some members of the Blue team will be unwilling to work directly with DoD. Some NGOs may see their impartial image compromised by working with DoD. Prior to OPERATION IRAQI FREEDOM and while during planning between NGOs and the US Government, several NGOs (e.g., International Red Cross) insisted that their agreements stipulate they would only report to civilian agencies.

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tact? When is the best time to contact these organizations and what kind of planning cycle are they on? What kind of support do these organizations need that DoD can supply, and vice versa?[79]

[S5]   Standard rules and procedures for supporting civilian personnel in a combat zone who work for US Government agencies and supporting organizations

Many people working for Blue will be civilians. Some will be US Government employees, while others will be host nation, third-country nations, or contractors. These civilians will be partners in the IW campaign and will at times need support from DoD. Their parent organizations will bring important capabilities to the overall campaign but they may lack all the needed support infrastructure for deploying personnel for extended periods or for putting personnel into a hostile environment. Standardized rules and procedures for working with those civilians will greatly assist in this area.

Some key questions remain to be answered: Do these civilians carry weapons? Who provides their short-term emergency and long-term rehabilitation healthcare? What access will these civilians have to DoD and other US Government infrastructure (e.g., transportation, food, bases)? What organization is responsible for the rapid-reaction security mission? Is there a central database of all Blue team personnel in the region? Who creates it, how is it updated, and who has access to it?

[S6]   Inclusion of non-DoD organizations and personnel in DoD planning process and exercises

A capability in need of substantial improvement.

David L. Phillips, *Losing Iraq: Inside the Postwar Reconstruction Fiasco*, (Westview Press, 2005), p. 129.

[79] "Due to the complexity of the task in a post-conflict environment, a greater depth of planning and coordination is needed, even below the combatant command level." Lee Blank, "Interagency Capabilities," in *Transforming for Stabilization and Reconstruction Operations*, Hans Binnendijk, Stuart E. Johnson, eds., (Washington, DC: National Defense University Press, 2004), p. 111.

IW campaigns require extensive planning because of (1) the large and diverse nature of the Blue team, and (2) the wide scope that includes military, political, economic, and social missions. If IW operations are going to include diverse crowd of partners for DoD, and if one fights like one trains, then training needs to include a diverse crowd of participants.[80] This isn't to say every DoD exercise needs to include every possible type of potential partner, but exercises focused on IW do need to reflect its diversity. The list of participants should include real organizations or stand-ins to represent other US Government agencies, NGOs, international organizations, coalition partners, an HNG, commercial contractors, local companies, and directly hired local workers.

The widely reported planning stovepipes that led up to OPERATION IRAQI FREEDOM have not improved much.[81]

[S21]   Standardized contract generation process (commercial contractors, local workers and companies)

In today's conflict environment, outside contracting by DoD is a given. In most scenarios, DoD will have need for some commodity or service that is either unavailable or too expensive to acquire internally. Outside contractors can be grouped into three general categories: local workers, local companies, and all other commercial entities. The term "local" refers to the region where DoD is operating.

The difficulty comes in standardizing the interaction with this diversified pool of partners across a plethora of arrangements. Standardization makes sense for several reasons, the first being that it can shift the workload of creating con-

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[80]   "Rehearsals are an invaluable and low-cost way of discovering gaps and problems in a plan before an operation actually begins…" Michele Flournoy, "Interagency Strategy and Planning for Post-Conflict Reconstruction," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 112.

[81]   The Special Inspector General for Iraq Reconstruction looked at the overall level of coordination among those involved in transitioning to the Iraqis. The report specifically mentioned the Provincial Reconstruction Teams as facing "serious challenges" because of coordination shortfalls. Special Inspector General for Iraq Reconstruction, *July 2006 Quarterly and Semiannual Report*, pp. 5–6.

tracts to some central entity that has the needed resources and expertise. A second reason for standardization is that it makes dealing with all the "hired outsiders" more manageable. If too many standards are in effect for items like providing healthcare, security, and transportation for contractors, it will be very difficult—for those within DoD who have to address these needs—to know who qualifies for what. Some big-picture judgments would need to be made at the highest levels within DoD, and then principles applied across the contracting landscape. A third reason for standardization is that it makes DoD a more predictable partner. Predictability can substantially enhance DoD's reputation in the commercial world. While DoD certainly doesn't *have* to be consistent, companies don't *have* to work with DoD. A fourth reason for standardization would be to make the process faster. If Company X is the eighth company to be hired to provide service Y, a standardized process should allow a rapid response. Some DoD needs will emerge with little warning, so the capability to rapidly react could save millions of dollars and even lives.

A standardized contract process would need to set a standard or relatively small number of standards for a wide range of issues, to include medical care support from DoD, security provided by DoD, transportation by DoD, pay rates both for individuals hired directly and for companies, mode and timing of payment, and performance parameters for those working for DoD.

[S40]   Communicate and work with the host-nation government

The single most important partner for the US Government in IW is the HNG. The HNG has the mass, local knowledge, and staying power needed to for IW. For those strengths to be fully exploited, the actions of the HNG need to be carefully coordinated with those of the US Government. In fact, lacking that coordination, the actions of US Government entities and those of the HNG can cancel each other out. This capability goes beyond just the needed hardware, to include TTPs (tactics, techniques, and procedures) and a culture that values cooperation.

[E1]   Form a cogent message and deliver it

A capability in need of substantial improvement.

Messages aimed at the population should (1) seek to reduce or prevent support for the insurgents, (2) induce greater information sharing with US and allied forces, (3) preserve those attitudes favorable to Blue, and (4) convince the population of the feasibility of transition to indigenous actors for most or all IW missions. [82]

Messages directed at the insurgents should benefit from knowledge of the internal dynamic within the insurgent community, an understanding of what would resonate in that community, and what effects on that community would best benefit the overall IW campaign.

Delivery of messages to any audience will require a sophisticated understanding of the communications of the target audience. How do they get their information and what sources do they trust the most—and the least? A wide range of tools should be available, for example, leaflets, billboards, radio, broadcast/satellite/cable TV, websites, e-mail, and cell phones. These messages should be created on short timelines; even a few days' delay can make a message obsolete. A range of options should exist to target large audiences or narrowly focus on certain small groups or individuals.

This critical capability has been given ad hoc treatment within the US Government, often by personnel with little expertise with influence operations, and hampered by crude message delivery that doesn't account for the local information environment. [83]

[E2]   Mediate disagreements between groups, before, during and after they turn violent

Once conflict erupts, it is imperative to stop the violence in the short term, and reconcile the causes in the long term. This requires some ability to interact

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[82] While some French influence efforts worked in Algeria, others did not. In a classic example of the wrong message, the French in the late 1950s were broadcasting the following message to the 80 percent Muslim population: "…it is the fate of the West and Christendom that are at stake in Algeria." Shafer, *Deadly Paradigms*, p. 159.

[83] *See* footnote 19 (Baylouny, "Alhurra, the Free One").

with the parties involved and to facilitate interaction between these parties. Aside from the physical ability to conduct this interaction (e.g., communications, meeting facilities, security), the mediator needs some basic level of credibility with all the involved parties.[84]

[E5] Anonymous tip tools to allow the population to safely pass information to members of the Blue team

A capability in need of substantial improvement.

There is great value in harnessing the ever present and discerning eye of the local population in picking out insurgents. Getting population feedback on the functionality of the government and infrastructure would also be a great value, as would feedback on Blue actions.[85] A program can look successful from the perspective of the provider, but the customer (the population) can view it differently.

However, a major hurdle is getting even those willing members of the population to come forward. The insurgents will severely punish any citizen caught passing information to Blue. Even if citizens are sympathetic with the goals of Blue, they won't make contact unless the risk can be reduced to a reasonable level. Even passing information of a negative nature on the government will cause hesitation in the population if they think they can be identified. While the American political environment holds the right of free speech as sacred, that is far from true in most of the third world.

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[84] For a description of how US Army National Guard personnel were mediating disputes between Kurds, Arabs, and Turkmen, see Steve Fainaru, "Honing the Art of Mediation in Divided Kirkuk," *Washington Post*, 2 May 2005, p. A10. For a description of how US State Department personnel brokered a settlement in Kirkuk's local provincial council, which had been at a political impasse, see Tini Tran, "Kirkuk's Ethnic Divide Laid Bare," Associated Press, 27 August 2005, accessed 28 August 2005 at www.washingtonpost.com.

[85] In 1951, the Philippines Defense Minister, Ramon Magsaysay, instituted a system that allowed any Philippine citizen to send a reduced rate telegram to a central government office to complain about anything. These telegrams were often followed by visits from the defense minister or one of his lieutenants. The goal was to improve the peasantry's opinion of government functionality and responsiveness, and it worked, generating a large following for Mr. Magsaysay. Shafer, *Deadly Paradigms*, p. 237.

The solution is to create organizations, TTPs, and technologies that allow those willing citizens to pass on their information to Blue with a minimal risk of detection. The risk doesn't have to be zero, just "reasonable" as defined by the population. Some key questions for such a system are as follow:

- Is the system that receives these tips capable of handling the volume?

- Can the system properly vet these tips, including false information planted by insurgents or criminals?

- Can the system quickly pass on these tips to the proper downstream Blue customers?

- Are any communication tools given directly to the citizens cheap enough to be bought in very large numbers (e.g., 10,000 or more units) and considered disposable?

- Are any sensitive technologies compromised if or when the insurgents capture this hardware from the population?

- Are the employees of such a system carefully vetted prior to hiring and closely monitored afterward?

- Is the use-signature and possession profile of this technology low for a citizen?

- Does the post-receipt handling of the tip maintain the stealth of the tip-ster?

Language barriers, limited contact with US Government personnel, the poor state of the Iraqi communications infrastructure, and a lack of appreciation as to the need for protecting the identity of civilian information sources have all combined to limit the ability to collect covertly accurate information from the population.

[E14]   Process to find, vet, hire, train, and pay local experts and other workers

On some occasions, Blue may hire workers directly, a useful option if no company exists yet (local or otherwise) that can address the need. Sometimes the need is just for laborers with basic skills, and they can often be hired for far less

than bringing in outside workers. Training these workers should be considered an essential aspect of this process. Transition can't occur until enough locals exist to take over each civil system.[86] In many cases, the need for expertise to operate a civil system, or any other task, can be found locally. These individuals may have operated the system in question before US forces arrived. Local "experts" will not only have knowledge of the type of civil system needing help but they will also know the exact system and all its particulars. For example, there's a difference in knowing how *a* city electrical system works and knowing how the *Mosul* electrical system works. In some cases, the needed indigenous experts won't exist so they will have to be created by hiring and training. See capability S26, *Expand/improve each civil system as needed* (page IV–101), for further discussion. In short, employing local labor serves many purposes, including infusing money into the local economy, reducing the unemployment rolls and thus decreasing the insurgent recruitment pool[87], accelerating reconstruction efforts by tapping pre-existing expertise, instilling a sense of self-sufficiency in the population, and often lowering the cost of the reconstruction efforts with cheaper local labor.[88]

Some process will be needed to locate these local sources of expertise and then vet them. Some of these experts may have ties to criminal or insurgent organizations, and such individuals could cause great harm to a civil system from

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[86] "Training and education programs for indigenous organizations and individuals can be a vital form of assistance in helping a post-conflict society transition to sustainable peace." Michele Flournoy, "Training and Education for Post-Conflict Reconstruction," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 130.

[87] In the last half of 2006, there was a Pentagon effort to decrease the proportion of around $4 billion paid to firms outside of Iraq to support US forces in Iraq. The goal was to reduce the percentage to 75 percent of the total spent. Josh White and Griff Witte, "To Stem Iraqi Violence, U.S. Aims to Create Jobs," *Washington Post*, 12 December 2006, p. A01.

[88] "Moreover, using private contractors proved significantly more expensive than turning to Iraqis themselves to tackle reconstruction needs." "Even more important, Iraqi ownership over the reconstruction process will be key to its ultimate success." Bathsheba N. Crocker, "Iraq: Going It Alone, Gone Wrong," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 278. By the time of CPA's departure in June 2004 from Iraq, only 15,000 Iraqis had been hired for projects funded by the "Supplemental" for reconstruction from the US Congress. Chandrasekaran, *Imperial Life*, p. 288.

the inside. Once found and vetted, these individuals would need to be hired.[89] This would involve some sort of personnel system that addressed record keeping and providing high-quality identifications. Once hired that same personnel system will need to pay them, which will require funding and a method of payment.[90] Some attention may also be required for employee benefits.

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[89] In 2006, an Iraqi doctor admitted to killing at least thirty-five Iraqi police officers and Iraqi soldiers under his care. He sympathized with the insurgents and took their money, and was paid up to $100 a murder. The assistant police chief in Kirkuk was one of his victims. John Ward Anderson, "Iraqi Doctor Says he Killed Patients," *Washington Post*, 27 March 2006, p. A12.

[90] "…international actors must establish salary structures for local hires that are competitive, but not exorbitant." Robert C. Orr, "Construction a Cohesive Strategic International Response," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 26.
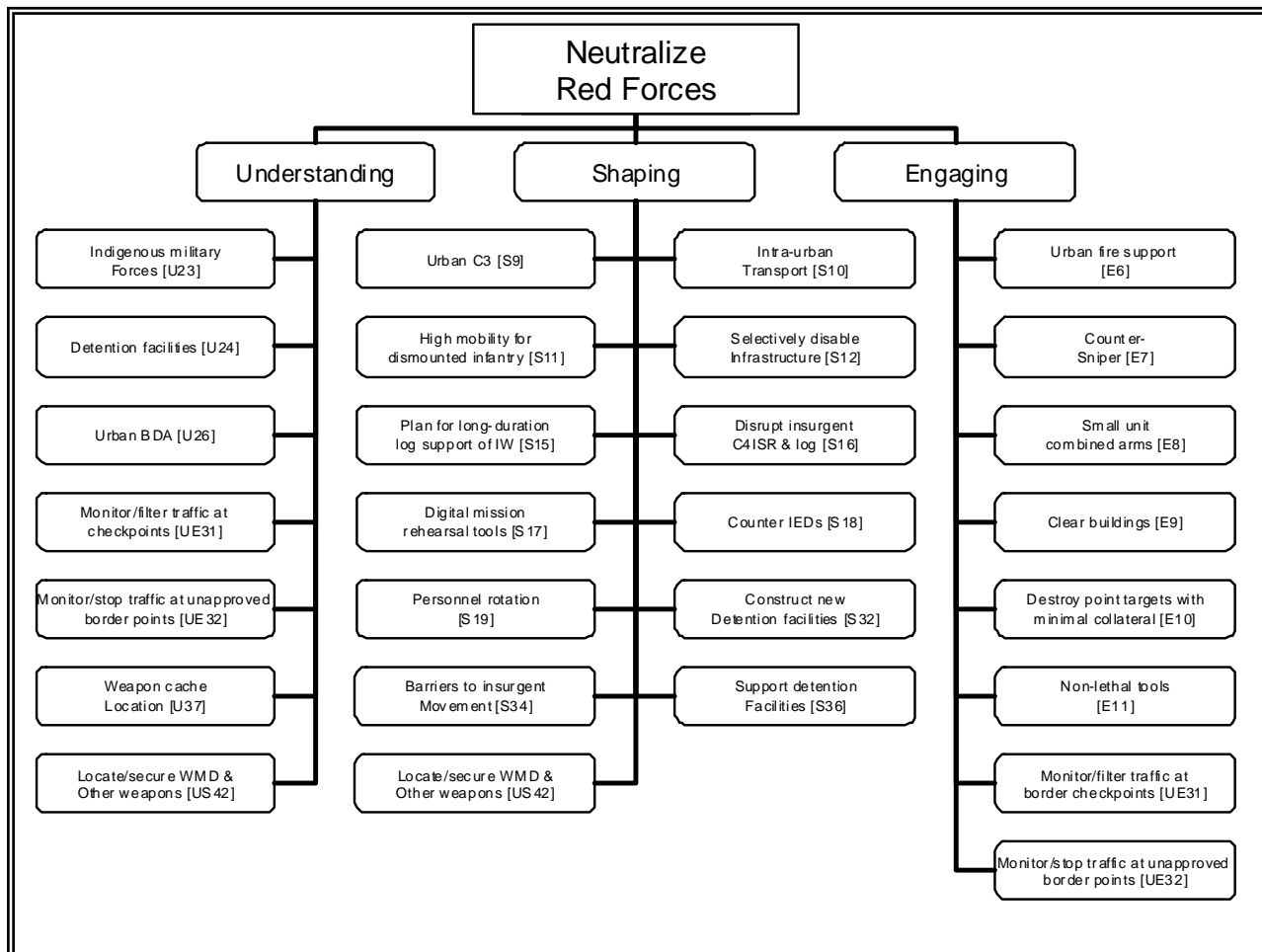
Figure IV–2. Neutralize Red Forces Mission

B. Mission: Neutralize Red Forces

[U23]   Map all relevant details of all current or recently dissolved military forces, their ongoing performance, and the current and future need for such forces

The assistance of indigenous forces is mandatory for the attainment of a security environment that can be transitioned away from US control. The scale of effort needed to provide fully for the security of the people is too vast to be supplied by US forces alone. It is therefore critical to know how well those indigenous forces are performing and what the overall needs for security are.

If the United States has arrived to support an existing government, then all the various military organizations supporting that government should be evaluated. This mapping needs to address both the inputs and outputs of these organizations, how effective they are, their loyalty to the host government, and the state of their relations with the population. Given the central role the population plays in any IW effort, any military force—indigenous or outside—that alienates the people is a serious problem.

Aside from their current condition, the evaluation of these organizations should also include the need for them. Is the current military apparatus suitable for the current threat? What elements, if any, need expansion? What elements, if any, need partial or complete disbanding? Are there trends in the nature of the threat that call for changes in the military apparatus?

Constant monitoring of any IW effort is needed; what worked one month may not work the next.[91] Metrics for tracking the performance of military forces in an IW campaign could include friendly personnel and equipment losses, damage to friendly military infrastructure, enemy personnel and equipment losses,

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[91]   In his book on fourth generation warfare, Hammes cited several outstanding traits of insurgents, one being "…the remarkable ingenuity they displayed for overcoming problems." Hammes, *The Sling and the Stone*, p. ix.

damage to enemy infrastructure, civilian losses, damage and disruption to the civilian economy, population-military relations, and the civilian sense of security.[92]

In a regime-change scenario, all the various military organizations associated with the past regime need attention. If disbanded, they can still constitute a threat for several reasons. First, their organization and network of personal relationships can act as a readymade structure for an insurgency. Second, their loyalty to the previous regime may incline them to act for its restoration. Third, they may still hold substantial weapon inventories. Fourth, many of these former members will be professionals in the art of violence.

For a discussion on how these former members of security organizations can be reintegrated into society, see the Disarmament, Demobilization, and Reintegration mission (page IV–173).

[U24]   Map the current state of all detention facilities, their ongoing performance, and the current and future need for them

The detention space available in a region will be a combination of temporary and permanent facilities. It is important to know the total inventory of that space, its condition, and the personnel supporting their operation. Some operational facilities may be in too poor a condition for legal use by US forces, or at least not without a significant public relations risk.[93] Consideration should also be

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[92] A May 2005 *Washington Post* story reported the recent use of a new system for tracking the status and progress of Iraqi military units. The overall commander of US forces in Iraqi was quoted, "We now have a tool to help us assess the progress of Iraqi forces." The distressing aspect is the two-year delay in fielding such a system. Bradley Graham, "A Report Card on Iraqi Troops," *Washington Post*, 18 May 2005, p. A10.

[93] The United States is party to the Geneva Conventions of 1949 that set minimum standards for the treatment of prisoners (Conventions III and IV). Violating these standards is a violation of both international law and the policy of the US military. The CJCS Instruction 5810.01B states, "The Armed Forces of the United States will comply with the law of war during all armed conflict, however such conflicts are characterized…" Schlesinger, *Final Report*, p. 79. International law aside, the Abu Ghraib scandal illustrated the immense public relations damage that can result from substandard treatment of prisoners.

given to the proximity or co-location of interrogation facilities, and the security of those facilities from external attack.[94]

The Abu Ghraib scandal highlights the need for careful monitoring of the operation of detention facilities.[95] The general expansion of conflict beyond the traditional battlefield continues here. Al Qaeda training manuals have been found that instruct their fighters to always claim abuse when captured. In essence, they were turning their captives into combatants.[96] The following criteria could be used to evaluate the performance of those facilities: number of escapes[97], the conditions, cost of operation, number of personnel needed for operation, protection from outside attacks, isolation of prisoners, safety for guard personnel, and the safety of prisoners.

A separate military detention system is needed to keep insurgents separate from common criminals.[98] Criminals and their networks possess certain skills that

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[94] "In July 2003, Abu Ghraib was mortared 25 times; on August 16, 2003, five detainees were killed and 67 wounded in a mortar attack. A mortar attack on April 20, 2004, killed twenty-two detainees." "MP detention units will need to be equipped for combat." Abu Ghraib was selected as a detention facility over Camp Bucca, about 150 miles away. While Camp Bucca would have been less vulnerable to direct attack, IEDs would have made transport more dangerous. Schlesinger, *Final Report*, pp. 11, 58, 73. On April 2, 2005, an assault of "…at least 40 to 50 men…" took place on the Abu Ghraib prison. While it was a sophisticated "…precision-timed offensive, which employed mortars, rockets, ground assaults and a car bomb…," it failed to free any prisoners or kill any US personnel (44 wounded). Ellen Knickmeyer, "Zarqawi Said To Be Behind Iraq Raid," *Washington Post*, 5 April 2005, p. A01.

[95] "The aberrant behavior on the night shift in Cell Block 1 at Abu Ghraib would have been avoided with proper training, leadership and oversight." Schlesinger, *Final Report*, p. 13.

[96] Hammes, *The Sling and the Stone*, p. 220.

[97] Three detainees escaped Abu Ghraib in May 2005. Jonathan Finer and Marwan Ani, "Iraq to Launch Huge Operation in Baghdad," *Washington Post*, 27 May 2005, p. A19.

[98] "All too frequently, criminal elements and organized political opposition are linked. Finding ways to separate the two sides of this equation is important, because political opposition feeds on the illicit funds provided by organized criminality." Douglas Macgregor, "New Strategic Concepts," in *Transforming for Stabilization and Reconstruction Operations*, Hans Binnendijk, Stuart E. Johnson, eds., (Washington, DC: National Defense University Press, 2004), p. 27.

might prove useful to the insurgents, so every effort should be made to limit contact between these groups.[99]

Another danger is insurgent networks forming within detention facilities. This will drive the need for greater separation of inmates and will likely increase the aggregate space needed for detained insurgents.[100] Factors like transportation limitations and economies of scale will influence the appropriate level of inmate separation.

[U26]   Urban BDA for kinetic and nonkinetic effects

Urban BDA is difficult because of the wide range of effects one will be attempting to generate, and the obscuring nature of the urban terrain. If the desired effect is to kill insurgents in a building, causing the collapse of the building does not necessarily denote success. If a part of the desired effect is to limit damage to a structure of value, like a power plant, this is more difficult. Did the Joint Direct Attack Munition destroy the primary generator or merely sever the connection to the outside power grid? *The delicate and interdependent nature of urban infrastructure is a major driver for urban BDA challenges.* As more non-kinetic munitions become available, the problem will get worse. How will one know if the power plant has been disabled by an electro-magnetic pulse? As the desired effects take on a more "dial-able" nature, BDA will be less of a yes or no question. If the goal was to disable the radio station for seventy-two hours, did that happen? Or was it disabled only for four hours or four months?

Metrics for an urban BDA capability would include the ability of the system to enter buildings (by either seeing inside or going inside), cost per sensor

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[99] Alistair Horne's *A Savage War of Peace* describes a common criminal who was "got at" by the FLN insurgents while in prison. Upon release, the criminal's knowledge of Algiers and his ability to operate beneath the law made him a valuable addition to the FLN. Horne, *A Savage War of Peace,* p. 187.

[100] "No doctrine existed to cover segregation of detainees whose status differed or was unclear…" Schlesinger, *Final Report*, p. 63. "…the French prisons were transformed into recruiting grounds and veritable staff-colleges for the F.L.N." Horne, *A Savage War of Peace*, p. 410.

platform, scanning rate (e.g., targets per hour, square meters per hour), standoff range, fidelity of feedback (e.g., just yes/no, or 27 percent damaged), feedback delay, and survivability.

[UE31] Monitor and filter traffic at approved border-crossing locations and other locations with minimal effect on legitimate commerce and travel

Given the importance of trade, simply closing the borders for the long term will not be a viable solution in many scenarios. At approved border-crossing points, it will be necessary to filter the legitimate traffic from (1) criminals and their smuggling and (2) insurgents and their logistical support. The need to allow trade will be obvious to the insurgents so they will make every effort to mix in their traffic with legitimate trade. Thus, this ability to filter will need to discriminate, with minimal disruption to legitimate trade.[101]

In some cases, it may be desirable to let identified insurgent traffic pass to be able to track subsequent movement and identify networks. This would require a more subtle detection capability that would allow an insurgent to think he or she

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[101]   The Israelis have estimated they will need $120 million to improve three main crossings between Israel and Gaza. They estimate that at one of these main crossings the improvements will safely allow the passage of 20,000 to 30,000 workers per day, or three times what can currently pass. An important variable in the cost and utility of such a barrier on the Syrian-Iraq border would be the number of crossing points needed and the flow of traffic expected. The second issue relates to the manpower needed to operate the barrier. The Israeli Defense Force has resisted giving specifics, but it has said the planned barrier will allow it to significantly decrease the manpower requirements for controlling the border. Given the much longer Syrian-Iraq border, this will be an important metric. Danielle Haas, "Israel Plans High-Tech Barrier Around Gaza," Associated Press, 28 July 2005, accessed 29 July 2005 at http://www.washingtonpost.com/wp-dyn/content/article/2005/07/28/AR2005072800704.html.
Sam Ser, "IDF Building Triple Fence Around Gaza," *Jerusalem Post*, 29 July 2005. The Israeli project for 14 terminals and 6 cargo hubs along the 400-mile barrier with the West Bank was estimated to cost $333 million. Israeli studies had found that some Palestinians were waiting four hours a day at checkpoints. The identification cards issued in conjunction with this barrier use retinal scan data. Scott Wilson, "Israel Upgrades, Fortifies Crossing From West Bank," *Washington Post*, 30 July 2005, p. A12.

had "slipped by." Another benefit would be to delay the violent confrontation with the insurgent until he or she are away from a crowded border checkpoint.

Interdicting criminal traffic is important for several reasons. Criminal traffic may bring into the country goods that are disruptive (e.g., drugs) to the society at large, or useful for the insurgents (e.g., weapons, supplies). Criminal traffic might also be smuggling important goods outside of the country, the loss of which hinders reconstruction efforts.

This need to filter traffic at the borders also extends to locations inside the country. Effective checkpoints within the country can degrade insurgent and criminal movement and logistical support. These checkpoints are also an important component in the system to identify insurgents. Every checkpoint is an ISR (intelligence, surveillance, reconnaissance) opportunity.

[UE32] Monitor and stop cross-border traffic at unapproved locations

A capability in need of substantial improvement.

At locations with no border checkpoints, traffic will need to be stopped as effectively as possible with a minimal use of manpower and other assets.[102] A decision would need to be made about the use of lethal force (e.g., mines) for this purpose. In some cases, there will be individuals attempting to cross who are neither criminals nor insurgents (e.g., nomads). Loss of life among this group would both damage relations with that group and cost the United States politically on the world stage. Whatever the form of barrier, it would need to be clearly marked to reduce accidental contact by civilians. As with every type of barrier, it will need to be monitored and backed up by some type of quick reaction force. No barrier can stop all movement but it should slow it down long enough for detection and reaction. The sensors for detecting crossing attempts may be integral to the barrier

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[102] By 1986, the Soviets had 50,000 troops deployed in an unsuccessful attempt to seal the Afghan-Pakistan border (1,509 miles long). Coll, *Ghost* Wars, p. 158.

itself or the sensors may be a separate network of airborne or ground platforms.[103] This sensing capability will need to be inexpensive enough to cover every kilometer of the barrier with short revisit times. The quick-reaction force need not be large, but it will need to respond within minutes to any breech attempt.

In 1957, the French in Algeria completed the 200-mile Morice Line on the border with Tunisia, which was a major source of supply for the FLN rebels.[104] The line proved very successful against the rebels, costing the FLN about 6,000 men in breach attempts during the first seven months. After that, rebel attempts to cross largely ceased. So while Tunisia was flooded with arms, rebels, and training camps, the rebels operating in neighboring sections of Algeria were virtually cut off. For comparison the Iraq border with Syria is 376 miles long.[105] With the advances in sensor technology and platforms (e.g., long-duration unmanned aerial vehicles or UAVs) over the last forty-eight years, even a barrier built with 1950s barrier technology should be able to seal the longer border and require far less manpower than the 80,000 personnel used by the French.[106] Some key questions

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[103] While the French Morice Line in Algeria is an example of how it can be done well, the present-day US border with Mexico is not. *See* John Mintz, "Border Camera System is Assailed," *Washington Post*, 17 June 2005, p. A29. *See also* Robert O'Harrow Jr. and Scott Higham, "U.S. Border Security at a Crossroads," *Washington Post*, 23 May 2005, p. A01. *See also* John Mintz, "Probe Faults System for Monitoring U.S. Borders," *Washington Post*, 11 April 2005, p. A01.

[104] "The most cost-effective way to cauterize the transnational component of the insurgency is to build an Iraqi version of the Morice Line." Horne, *A Savage War of Peace*, pp. 263–266, 326. Paul Staniland, "Defeating Transnational Insurgencies: The Best Offense is a Good Fence," *Washington Quarterly*, Vol. 29, No. 1 (Winter 2005-2006).

[105] The Iraq-Iran border is 905 miles and the Iraq-Saudi border 505 miles. *CIA World Factbook*, accessed 19 May 2005 at http://www.cia.gov/cia/publications/factbook/geos/iz.html.

[106] Completed in September 1957, the Morice Line ran approximately 200 miles south from the Mediterranean Sea into the empty Sahara, and it included an 8-foot electric fence charged with 5,000 volts, a 50-yard belt on either side of the fence laced with anti-personnel mines, and backed by continuous barbed-wire entanglements. Immediately behind the barrier was a well-patrolled track (on foot, in vehicles with searchlights, and by helicopter). The electric fence was configured so that any cut could quickly be localized. Fire from pre-sighted 105mm guns could be brought to bear on the breach point as could quick-reaction forces. Defending the line was a total of 80,000 French forces. FLN rebels tried many different tactics

(Continued)

to sealing the border will include how much support the insurgents are receiving from outside the country, what is the border's terrain like, which borders are crossed, and how these crossings are conducted.[107]

A more modern example of a border barrier would be the one planned by Israel prior to the removal of Jewish settlers from Gaza. With the planned pullout of Israeli settlements from Gaza, the Israelis are planning a state-of-the-art barrier along Israel's border with Gaza. The barrier is estimated to cost $220 million (US dollars) for its 35-mile length. If a similar barrier were scaled up for a 376-mile long version to cover the Iraq-Syrian border, the bill proportionally would be around $2.4 billion. While this barrier is certainly a considerable expense, it's useful to note the estimated cost is well below the current monthly cost for US operations in Iraq. The Saudis are currently considering a barrier system for their border with Iraq.[108]

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to breach the Morice Line, but by April 1958, French estimates were that 80 percent of the rebels attempting to cross were "neutralized." In frustration, the rebels next staged a massive assault on the barrier in late April 1958. It was a disaster, costing the rebels 620 out of a force of 820 men. A similar full-scale assault was attempted in November that same year, with similar results. The rebels also tried bypassing the barrier to the south, but in the expansive desert wastes they were easy to detect. Aside from the travel there being very difficult, French aircraft would strafe any suspect group detected. In one instance, fifty rebels trying to bypass the barrier were killed when a paradrop of French troops trapped them. Horne, *A Savage War of Peace*, pp. 263-266, 326.

[107] An important consideration *vis-à-vis* UAVs is that it's not just the number of UAVs in service but also the ground infrastructure to support them. As of June 2005, *Aviation Week and Space Technology* was reporting US Predator operations in Afghanistan and Iraq were limited to six orbits at any one time. Only six operator stations were available at Nellis AFB in Nevada, where Predators were controlled from. World News Roundup, *Aviation Week and Space Technology*, 27 June 2005, p. 18.

[108] Danielle Haas, "Israel Plans High-Tech Barrier Around Gaza," Associated Press, 28 July 2005, accessed 29 July 2005 at http://www.washingtonpost.com/wp-dyn/content/article/2005/07/28/AR2005072800704.html. Michael Theodoulou, "Saudis Plan to Fence Off Border With Chaos," *Times* [of London], 10 April 2006.

Efforts to secure Iraq's borders today are well short of the manpower, equipment, and infrastructure necessary.[109]

[U37]   Locate weapon caches

Especially with urban insurgents, a common tactic is to stash weapon caches in structures where they are both accessible and difficult for opponents to find. While moving and fighting in the urban landscape, the insurgents benefit from this tactic: (1) it allows the insurgents to move faster from point to point unencumbered by weapons, and (2) it enhances insurgent stealth by making their movement look more civilian-like, that is, without weapons. And when not actively engaged in operations, the insurgents benefit from being separated from their weapons, as this better allows detained insurgents to more plausibly deny their combatant status.

The ability to detect these weapon caches doesn't have to include the ability to tell if insurgents are collocated with those weapons at that time, or if nearby humans are the owners or even know of the caches existence. Simply detecting the weapons, be it their metal or explosive signature, would be of considerable value. Higher fidelity acquisition would certainly help, especially in areas where some level of civilian weapons possession is allowed. A great deal of time and effort could be saved if the sensor system could tell the difference from one and twenty AK-47s in a closet, or the difference between an AK-47 and a rocket-propelled grenade (RPG). This ability to detect should include weapons on a person and weapons out of the sensor's line of sight (e.g., buried, inside structures). A line-of-sight-only system would be a little value given the ubiquitous hide-locations in built-up areas. Another benefit of a standoff detection capability would be having less of an effect on the population. A reduced level of intrusion, relative to the current hand searches of homes and vehicles, would reduce the negative effect on popular attitudes.

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[109] "The 45 miles of border monitored out of Combat Outpost Heider and a series of Iraqi forts here are porous, especially at night, and U.S. authorities say it is simply impossible to know who and what are passing through." Josh White, "Along Iraq-Syria Border, a Struggle to Cover the Terrain," *Washington Post*, 1 November 2006, p. A12.

[US42] Locate and secure/destroy any WMD or other weapon stocks not held securely by the host government

The HNG will have weapons stocks of its own, including weapons of mass destruction (WMD) in some cases, and these could act as a source of supply for insurgents if not properly secured. The first step is detecting these stocks. While the HNG will usually be cooperative in this area, it might not always be so, especially relative to its own WMD. An HNG might also have problems with its own tracking of stocks so other members of Blue should have some independent capability in this area. The technologies for detection, security, and destruction are likely to vary widely, depending on the particular type of weapon. Some key questions concern the state of physical security at storage facilities, the trustworthiness of security personnel at the facilities, and whether the location of a facility is widely known. US organizations should be capable of a variety of security-enhancement options. Depending on the wishes of the host government, this might involve better site security, moving those stocks to a more secure location (in or out of the country), or the destruction of those stocks.

[S9]   Urban C3

Urban command, control and communication (C3)is difficult for several reasons. First, the structures ground units have to operate in and around disrupt both radio and GPS (Global Positioning Satellite) signals.[110] This is a problem especially for units underground in tunnels or basements. Second, those same structures limit line of sight so visual contact is also lost frequently. Third, the short engagement ranges typical of urban combat place a premium on speed of reaction, both in terms of quickly moving units and providing fire support. Fourth,

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[110]   For a recent example of communication problems in an urban environment, *see* Tim Pritchard, *Ambush Alley: The Most Extraordinary Battle of the Iraq War*, New York: Ballantine, 2005. For details on how poorly some aspects of US C3 performed in Mogadishu, Somalia, *see* Bowden, *Black Hawk Down*, pp. 112–113, 123–124. During the Project Metropolis experiments, 50 percent of all radio transmissions were command enquires about subordinate location. US Marine Corps Warfighting Laboratory, *Project Metropolis: Military Operations on Urbanized Terrain Battalion Level Experiments—Experiment After Action Report*, February 2001, p. 24.

the short engagement ranges also put a premium on fire support accuracy. Fifth, troops without accurate maps can easily get lost in the maze of urban structures. These factors can add up to units being "lost" and out of contract to higher headquarters.[111] When these units then contact the enemy, it's much harder for higher echelons of command to support them or even know that the units are in contact.[112]

Some metrics for urban C3 would include percentage of time radio contact is maintained, percentage of time a unit's location is known, and the accuracy of that perceived location.

[S10] Intra-urban transport capability (land or air) for moving forces, supplies, and wounded to/from isolated locations in a city

Troops used in IW operations are often employed in small groups widely scattered across the terrain. Much of that terrain will be urban and hostile. A capability is needed that can move into those locations, supply the troops while there, and evacuate the injured. This capability could be by the ground or by air, with manned or unmanned systems. The goal should be that small units physically isolated from other friendly units are not isolated from the support of the rest of the force. Absent a capability to effectively operate in hostile territory in small groups, US forces would lose much of the initiative while granting safe havens to the insurgents. The only viable option for offensive action would then be large-scale sweeps through areas not controlled by friendly forces.

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[111] In April 2004, a US Army platoon was pinned down in Baghdad's Sadr City and needed to be rescued as its vehicles were disabled. However, it would take several hours to precisely locate the soldiers in the urban maze and smoke despite their being in near-constant radio contact with other units. Martha Raddatz, *The Long Road Home*, (New York: G. P. Putnam's Sons, 2007).

[112] A May 2005 article noted the use of E-8C Joint Stars aircraft, despite their impressive sensor suite, being used mostly for C3 relay. The E-8Cs were pressed into this duty because the Air Force's EC-130s had been retired and the E-3s AWACS (Airborne Warning and Control System) fleet, after a decade of heavy deployments, had to be send sent back to the United States for rest and refit. David A. Fulghum, "A Night Over Iraq," *Aviation Week and Space Technology*, 16 May 2005, p. 64–66.

The first problem of isolated small-unit operations in the urban environment is getting them there. Ground vehicles are the simplest option given the number likely available to most units.[113] While the urban maze of look-alike buildings can make navigation tricky, ground vehicles are reasonably fast, with the short distances usually covered within a city, assuming traffic congestion is not an issue.[114] The down side is their vulnerability to a range of man-portable weapons, weapons that can be well hidden and fired from indoors. An unarmored vehicle is vulnerable to just about everything, even pistol rounds. AK-47 rounds can go in one door and out the other of an unarmored HMMWV. Armored HMMWVs are vulnerable to 12.7mm heavy machineguns and the ubiquitous RPG. Even heavy vehicles like the Bradley and Abrams are vulnerable to mines and IEDs. Two nations with a lot of urban combat experience in the last decade, Israel and Russia, have developed super-heavy armored personnel carriers (APCs) based on tank chassis and built especially for the urban fight.[115]

The other primary transportation option is helicopters. They offer the speed to make most transits in minutes while bypassing ground-traffic congestion. On the downside, their greater expense and support requirements equate to fewer total platforms being available, relative to ground vehicles. Another limitation is their reduced ability to absorb damage and protect their occupants. Helicopters cannot carry the same amount of armor as ground vehicles; when they do receive damage, the results can be more catastrophic. The risk to a Bradley crew from a single RPG hit is less than to the crew of a UH-60 Blackhawk. Here again the abundant cover of the urban environment plays a role. Insurgents are difficult to

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[113] For a study on the lessons learned in Vietnam on convoy security—and subsequently forgotten, *see* Richard E. Killblane, *Circle the Wagons: The History of U.S. Army Convoy Security*, (Fort Leavenworth, KS: Combat Studies Institute Press, 2005).

[114] In some cases, this is a big assumption. Peak traffic times are only somewhat predictable.

[115] Jim Warford, "The Resurrection of Russian Armor: Surprises from Siberia," *Armor*, September-October 1998, 30-33. Marine Corps Intelligence Activity, *Urban Warfare Study: City Case Studies Compilation* (Quantico, Va.: US Marine Corps, 1999), 32. Capt. James D. Leaf, "MOUT and the 1982 Lebanon Campaign: The Israeli Approach," *Armor*, July-August 2000, 8-11. Marsh Gelbart, *Modern Israeli Tanks and Infantry Carriers, 1985-2004*, (Oxford, UK: Osprey, 2004).

spot prior to firing as they can hide indoors or blend with the population. Small arms and RPGs are effective against very low-altitude helicopters, and MAN-PADs are effective against helicopter flying higher. [116]

The job of transport is not limited to getting a force to and from a target. Once there, the force may need resupply or casualty evacuation.[117] This places a premium on response time as minutes can make the difference between a WIA and KIA. Additionally, urban engagements historically involve very high ammunition-usage rates.[118] Survivability is more of an issue in this case as the element of surprise would be lost. A unit will need resupply or casualty evacuation be-

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[116] If a helicopter flies high (e.g., 3,000+ feet) it avoids the small arms threat but then becomes more vulnerable to shoulder-fired SAMs. These systems generally have slant ranges of several miles and altitude limits of 5-10,000 feet, and need time to lock onto a target. A *high-flying helicopter* provides that time to engage because it stays in the line of sight of the shooter much longer. At *low-altitude* a helicopter is much less vulnerable to the shoulder-fired SAM, but then becomes a viable target for small arms. The first-generation Russian SA-7 (Strela-2) has an effective range envelope of 800-3,600m, and an altitude envelope of 50-2,000m. Below those minimum numbers it can't engage. This system has been around since the 1960s, and is common on the international arms black market and in many third world countries. Newer MANPADs expand that envelope to both lower and higher altitudes. Tony Cullen and Christopher F. Foss, eds., *Jane's Land-Based Air Defence 1997-98*, (London: Butler and Tanner Limited, 1997) 22-23.

[117] For a discussion of the threats posed to medical support personnel in MOUT, see LCDR Charles J. Gbur, Jr., USN, "Battalion Aid Station Support of Military Operations on Urbanized Terrain," *Marine Corps Gazette*, (February 1999), pp. 22–25. Russian troops in Grozny relied more on APCs rather than helicopters to evacuate wounded, especially after the Chechens shot down several helicopters. Lester W. Grau, and William A. Jorgensen, "Handling the Wounded in a Counter-Guerrilla War: The Soviet/Russian Experience in Afghanistan and Chechnya," *U.S. Army Medical Department Journal*, (January–February 1998).

[118] During the April 2003 "thunder runs" in Baghdad, one tank company holding a highway interchange expended 10,000 12.7mm rounds, 24,000 7.62mm rounds, and 64 120mm rounds in one day. In the next two days, defending another objective in Baghdad, the same tank company expended 70,000 total rounds of 12.7mm and 7.62mm. Zucchino, *Thunder Run*, pp. 283, 320–321. While engaged in Fallujah in November 2004, one Marine company and a supporting element of six Abrams tanks expended 160 TOW missiles and 180 120mm main gun rounds in four hours. For the month of November 2004 in Fallujah, a total of 14,000 artillery and mortar rounds were fired, as well as 2,500 120mm main gun rounds. West, *No True Glory*, pp. 287, 315–316.

cause it has been engaged and discovered by the enemy. The enemy will be expecting some sort of reinforcement and will know their destination.[119]

Metrics for evaluating this capability would include deployment speed, reaction time for unplanned sorties (e.g., casualty evacuation), range, precision placement of supplies, survivability, and payload.

[S11]   High mobility for dismounted infantry over urban obstacles

The HMMWV is a versatile vehicle, but it can't drive up a staircase or drive down every third-world alley. US infantry are going to spend a considerable amount of time on foot, traversing a range of rugged urban obstacles. They need to be fast on their feet and can't be expected to run up stairs and kick down doors while wearing a 70-pound pack. The gear carried by an infantryman needs to be both light and compact. These dismounted troops usually won't need to traverse long distances but they will be called upon for bursts of speed in a cluttered environment. This equipment set needs to be compact so movement in tight quarters is not impeded (e.g., down manholes, through narrow doorways, attics, sewers, tunnels). Nearby vehicles can carry the heavy loads so an infantryman's kit need only carry the essentials.[120]

Infantrymen will also need the ability to breach interior and exterior walls and doors. A common defensive tool of insurgents will be booby traps at predicted points of entry. If infantrymen can create their own entry points, the risk is reduced. Insurgent defensive schemes for buildings will be greatly complicated if US troops can enter from any direction.

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[119]   For two accounts of the resupply/reinforcement difficulties in 1993 in Mogadishu, see CPT Mark A. B. Hollis, USA, "Platoon Under Fire: Mogadishu, October 1993," *Infantry* (January–April 1998), pp. 27–34; and Mark Bowden, *Black Hawk Down* (New York: Penguin, 1999). For an account relative to Iraq, see Zucchino, *Thunder Run*. A 1999 Joint Staff on study of urban operations surveyed the CINCs who responded that today's logistical system was too focused on supplying large groups rather than supplying the small dispersed groups likely in MOUT. US Department of Defense, Joint Staff, *J8 LLW Urban Operations Study: Phase I Final Report,* (Washington, DC: US Government Printing Office, 1999), p. 4-3.

[120]   Such an approach was used by US infantry in clearing Aachen, Germany, in 1944.

In some cases, increasing entry options may not require breaching but enhanced vertical mobility. If US infantry can enter a building from a non-ground floor window or the roof, then the insurgent defensive scheme is also complicated. The same could apply to helicopter insertions on rooftops. If those troops can bypass the top floor on their way to a lower floor, the insurgents have a more complicated problem to solve.

[S12] Selectively disable utility, transportation, and communications infrastructure for the short term with minimal damage

Insurgents may benefit from some portions of the civilian infrastructure, deriving logistical support from the same systems that support the population. It will be desirable at times to temporarily shut down that infrastructure without causing it long-term damage. This capability should include a range of disabling options that can be adjusted for the extent of the damage, the duration of the damage, and the cost of repairing that damage. Limiting the damage is critical: (1) the Blue team will likely be paying the repair bill and (2) the disruption to the civil system will affect the population and consequently generate ill will toward Blue.[121]

The problem of BDA for such a capability is addressed under *Urban BDA*.

[S15] Include in planning the unique logistical demands of long-duration IW and urban operations

IW and urban operations stress the logistical system in unique ways. The duration of IW operations can wear out equipment. The preponderance of small-unit engagements at close range, especially in urban terrain, will disproportionably use things like small-arms ammunition and body armor. IW operations also

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[121] In August 2005, US Marines destroyed a bridge across the Euphrates in western Iraq to stop the infiltration of insurgents into the area. Being the only bridge across the river near the town of Husayba, this, in turn, damaged the commerce of the area. The US military commander in the area described the lack of the bridge as the single biggest complaint he got from the population. Any future repair of the bridge will likely require US funds. David S. Cloud, "In Bid to Rebuild Razed Bridge, Recovery and War Vie in Iraq," *New York Times*, 6 April 2006.

expose a larger proportion of the force to direct attack (e.g., support troops), which increases the need for training and equipment like the infantry units receive. The utility of unarmored vehicles will decrease with the reduction in "safe areas," thus requiring a large percentage of the non-combat vehicle fleet to be armored.

A significant number of small units (e.g., platoons, companies) may be dispersed across urban and rural areas, operating autonomously or working only with indigenous military or police units.[122] The extended separation of these units from the normal "big base" paradigm may require some new logistical capabilities highlighted by the following questions: How are the logistical needs of these smaller units tracked? Does the needed speed of resupply change for a smaller unit acting alone? Does the lack of a large base change how supplies should be delivered to the unit? If a small unit is assigned a relatively small area of responsibility, does that change their mobility needs, and what are the corresponding logistical implications (i.e., fewer or no vehicles equal far less logistical support needs)? Can a smaller unit get its supplies rather than have some other unit deliver them? How does autonomous small-unit basing affect casualty evacuation needs?

[S16]   Disrupt insurgent C4ISR and logistics

A capability in need of substantial improvement.

An important aspect of this is to understand how the insurgents operate. How do they get their information, how that information is moved around, and

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[122] The Civilian Irregular Defense Group (CIDG) program in the early 1960s in Vietnam paired small Special Forces teams with indigenous village forces. This program produced considerable success, enlisting 38,000 irregular forces after thirteen months to defend their villages. Unfortunately, the US Army decided in 1962 that the CIDG diverted US forces from more important offensive operations. A similar effort (CAP) that dispersed USMC platoons into villages to work with local forces was tried in the mid-1960s. This program also produced considerable success, although it was neither adopted by the US Army nor viewed favorably by senior Army officers. General Westmoreland referred to it as a USMC infatuation with securing real estate. Nagl, *Learning to Eat Soup with a Knife*, pp. 128, 157. For further details on the CAP program, see West, *The Village*.

how do they conduct command and control?[123] Are the insurgents using the civilian communications infrastructure for command and control, and for moving information? If so, can those pathways be monitored or disrupted? This would include feeding the insurgents false information as to US actions, intentions, and the actions and intentions of others. [124]

Insurgent C4ISR (command, control, communications, computers, intelligence, surveillance, reconnaissance) can be disrupted in a number of ways, including the destruction of command nodes, blocking Red's ability to communicate with or locate other Red units, blocking Red's ability to detect Blue units, and blocking Red's ability to accurately detect Blue actions (i.e., get the time, place, or purpose of an action wrong or be unaware of it). Impairing any one of these links in the chain will create disruption. The particular scenario will determine which link in the chain makes the most practical target. Directly attacking insurgent command nodes or personnel may prove very difficult given their natural stealth and resilience (see [U14] *Map insurgent command structure, leadership, and motivations and goals*).[125]

The same characteristics that make ISR so challenging in the urban environment for Blue can be used to the advantage of friendly forces.[126] The near-

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[123] Chechen forces in Grozny used cellular phones to communicate in a more effective manner than how Russian forces communicated in the city. US Department of Defense, Joint Staff, *Handbook for Joint Urban Operations*, (Washington, DC: US Government Printing Office, 2000), p. IV-10.

[124] In 1959, the French mounted a major offensive into a FLN rebel stronghold, an area held by the rebels since 1954. An important component of this offensive was the extensive use of double agents among the population. These double agents would discover which people were giving food to the rebels and punish them. This tactic was so successful that villagers stopped giving food to the FLN rebels, not knowing if it was a legitimate FLN representative asking or a French plant. Horne, *A Savage War of Peace*, pp. 335–336.

[125] In the late 1980s, the Israelis had great difficulty in neutralizing the leadership of the Palestinian *intifada*. "The networked nature of the leadership made it virtually impossible to destroy. This is a definitive characteristic of a 4GW organization." Hammes, *The Sling and the Stone*, pp. 98–102.

[126] The CINCs described the need for more work in the area of urban camouflage. US Department of Defense, Joint Staff, *Joint Warfighting Capabilities Assessment*, p. 4-4. For a discus-

(Continued)

constant buzz of activity and noise, if exploited by the proper tactics, could mask the approach of US forces and reduce the warning time to insurgents. On some occasions, US forces might forego the speed of a helicopter or the protection of an APC for the stealth of a civilian vehicle or traveling on foot.

As both Red and Blue share the same physical battlespace, this affords Blue some new opportunities to impede Red logistics.

DoD has serious difficulty disrupting a foe's C4ISR and logistical systems when their systems overlap with the civilian infrastructure, and the infrastructure needs to be preserved.[127]

[S17]   Software and hardware tools for urban mission rehearsal and course of action assessment

The cluttered urban environment complicates operations within it. US personnel have to account for the presence of civilians, unexpected interior building features, hidden insurgents, booby traps, variations in building construction, and the interdependent nature of urban infrastructure. This large number of variables makes mission rehearsal and course of action assessment difficult. What's needed is a suite of software and hardware tools that can assist in managing this complexity. What happens to a plan if building X has civilians inside, or if the intelligence is wrong about which building the insurgents are in? What happens to the city's

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sion of how the activities of the local populace can be used as cover by a military force, see Russell W. Glenn, ed., *Heavy Matter*, (Santa Monica, CA: RAND Corporation, 2000), pp. 33–34. For a detailed discussion of the role deception can play in MOUT, see Scott Gerwehr and Russell W. Glenn, *The Art of Darkness*, (Santa Monica, CA: RAND Corporation, 2000). In 2001, right-wing paramilitary forces evicted leftist rebels from a medium-size city (population around 200,000) in northern Colombia. Afterward, in an effort to disable the rebel early warning network, the paramilitaries confiscated the cell phones of residents in some neighborhoods. Scott Wilson, "Colombian Right's 'Cleaning' Campaign," *Washington Post*, 17 April 2001, p. A01.

[127] *See* footnote 42 (Bowman, *Iraq*). In the summer of 2004, when insurgent forces controlled Fallujah, journalist Nir Rosen was smuggled into Fallujah by insurgents, even though the city was supposedly sealed off by coalition forces at that time. He described obscure trails that US forces didn't know about but that were well known by the indigenous population in a town with a history for smuggling. Rosen, *In the Belly of the Green Bird*, pp. 149–150.

power grid if the power plant's main generator building is hit by an errant 155mm round? If the school used by insurgents as a base is also an ammunition dump, what happens to the surrounding neighborhood if US forces fire on the school?

Metrics for this capability could include the size of computer needed, the number of variables that can be accounted for, fidelity of postulated effects, speed at which scenarios can be run (preferably faster than real time), frequent update capability of databases, ease of setting up a scenario, ease of changing scenario conditions, training time for using the tool, ability of geographically separate personnel to work together through the tool, and the ability to share the results.

[S18]   Counter IEDs

A capability in need of substantial improvement.

IEDs and their vehicular cousin (VBIEDs) have been a common tool for insurgents and terrorists alike.[128] They allow a superior enemy to be atritted with minimal risk to the insurgent forces. In addition to the losses suffered directly from IEDs, the explosive devices generate collateral damage in the behaviors they modify. If the goal is to disrupt a society, killing people on the way to work, or making them too afraid to go to work, both have a useful effect. The military and/or police forces opposing the insurgents can also be degraded by the direct and indirect effects of IEDs. Every dollar and man-hour used to protect against IEDs is one less available for offense operations against the insurgents. While IEDs lack the precision and flexibility of more high-tech strike options, their random nature actually enhances their value as a terror tool. Every street and every civilian can now be seen at risk. The relatively low-skill demands for emplacement facilitate the subcontracting of that phase of the operation. This both expands the available manpower pool for this type of attack and adds an insulating layer between an insurgency's most skilled operators and the most risky phase, that of emplacement.

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[128] Iraq is hardly unique in regards to IEDs. In March 1962 in Algiers, the OAS (Organisation de l'Armée Secrète), a French right-wing terrorist organization in Algeria, set off 120 to 130 bombs in a single night in Algiers. Horne, *A Savage War of Peace*, p. 517.

A counter-IED effort can focus on one or more phases in their gestation. These phases include material collection, bomb-maker training and recruitment device construction, device transport and emplacement, and post-emplacement detection and neutralization. Blue success in any of these phases will reduce the direct damage done by IEDs, but success in some phases will do far more damage to an insurgency's long-term IED capability. Ideally, the focus should not be only on diminishing the direct impact of IEDs but also on the ability of an insurgency to create them.

Material collection. Attacking this phase involves drying up the supply or insurgent access to key components. This starts with knowledge of what components are being used in IEDs, where those components are coming from, how plentiful they are, and what substitutes are available. Do any vulnerable components exist that are at the same time vital to an IED's function, difficult to get, and do not have a ready substitute? If one or more vulnerable components of the supply chain can be identified, then the insurgent access to those components should be disrupted.

Bomb-maker training and recruitment. Attacking this phase requires mapping the personalities involved and the talent pool available. If a recently dissolved military had 350 explosive experts, tracking them down would be a good start. If the insurgents are training new bomb makers, this will be more difficult to counter. The emerging patterns in IED design may provide an indicator as to the bomb makers involved. Does the most common IED design match that of a design taught to members of a particular military organization, perhaps even the host nation's military? The diversity in IED design may indicate the number of actual bomb makers. If only one or two primary designs exist, this may indicate only one or two bomb makers—or a larger number of bomb makers who learned their craft from the same few sources. If these bomb makers can be identified, then their location should be the next objective. Tracing their professional and personal networks and past associations may provide clues as to their location. Offer large rewards to the population for information about these individuals. New recruits training as bomb makers may be detected by their handling of explosives. New recruits could be discouraged by widely advertising severe penalties for any bomb maker caught.

Device construction. This phase requires safe houses. These locations are not likely to contain much identifiable infrastructure, but the bomb materials themselves may be detectable, as is the human traffic of suspect types. Pattern analysis will be necessary of a plethora of sensor inputs over extended periods of time. In isolation the various bits of information won't make sense, but when blended all together with careful and timely analysis, the patterns will emerge. Timeliness is important because the smart insurgents, the ones likely to live long enough to be a problem, will frequently move the location of these safe houses. This will require extensive and well-organized archiving of sensor data, with access to all parties that need it.

Once a safe-house assembly point is discovered, it may not be advisable to assault it. Once a safe house is identified as part of the insurgent network, a number of insurgents may then be identified by their arrival and afterwards going on to other insurgent safe houses. The tradeoff is between waiting too long and the risk of the safe house closing down and the trail going cold. Preference should be given to ground-force assaults on these safe houses versus a stand-off strike. The added intelligence gained from captured personnel and inspecting an intact insurgent infrastructure in action should not be underestimated.

Device transportation and emplacement. Once constructed, the explosive device will be transported and emplaced. In some cases, the construction site will be the emplacement site while other cases will involve movement. This movement and emplacement is another candidate for *pattern analysis*. Patterns could emerge related to type of transport used, time of day moved, time of the week or month moved, multiple moves prior to emplacement, delays between movement and emplacement, number and type of personnel involved in movement, number and type of personnel involved in emplacement, and location of placement relative to the construction site or certain geographic features. Once a movement is detected, it may be preferable to observe rather than assault for the benefit of tracking where the transportation asset goes after emplacement. As with safe houses, capturing the personnel transporting an IED is preferable to killing them, as they may prove valuable sources of intelligence. The personnel involved in transport and emplacement are more likely to be subcontractors rather than long-term devoted members of the insurgency, so the intelligence value of these

subcontractors will be less than the intelligence value of personnel involved early in the IED gestation process. The local population may also be a great source of intelligence—little happens in the typical neighborhood that goes unnoticed by everyone. Once the IED is emplaced and detected, it may be useful to stage detection with a bogus sensor. This could serve two purposes. The first is to protect the identity of the effective sensor and thus maintain some element of surprise. The insurgents will have a much harder time countering a sensor they don't know about or know how effective it is. The second purpose would be to mislead the insurgents about US sensor capabilities. A mistaken fear of a bogus sensor might cause the insurgents to stop certain actions or emplacements in certain areas— when, in fact, US sensors are not effective in those situations or locations. *In essence, this approach is getting the opponent to assume away his own capabilities. [italics added for emphasis]*

      Post-emplacement detection and neutralization. The final phase is *post-emplacement detection/neutralization*. While certainly valuable, success in this phase offers the least potential for damaging the insurgent infrastructure that produces IEDs. The obvious first step is detection. Insurgents will go to great lengths to disguise these devices as everyday objects so an important tool for Blue will be change detection. Instead of checking all 127 trashcans in the neighborhood, check the one that wasn't there yesterday. For emplacement techniques that involve burial or the replacing of existing objects (e.g., bricks, steps, curbs), the emphasis might be on looking for human activity. If a hole takes eight minutes for two people to dig, this signature may be detectible, especially if it takes place at a time normally devoid of similar legitimate human activity. Trace chemical analysis may also be useful across a range of emplacement techniques. A metric for neutralizing a detected IED is that once detected, it should now do less damage had it not been detected. Clearing people away from the device can certainly save lives, but sometimes the risk to structures or other property requires something more than simple detonation. If the blast can be semi-contained or the IED defused, this would certainly help. In some cases, it may be possible to neutralize an undetected IED by interfering with the triggering device. If the device is triggered by some sort of signature (e.g., sound, pressure, magnetic field), it may be possible to artificially replicate that signature and detonate the IED prematurely. The same could be done with a command-detonated device by sending a bogus com-

mand to detonate. However, great caution needs to be taken with any of these premature detonation strategies. If the location of the device in not known, then a premature detonation may cause just as much damage as intended by the insurgents. A safer strategy would be to make the IED inert. If it's a command-detonated device, this might be accomplished by severing the command link. If the IED is signature sensitive, its ability to sense those sensors could be damaged. Damage to the electronics might also destroy the fuse or trigger for the explosive, rendering mute the sensing of any signature or command to detonate by the munition. *A key requirement for this strategy is that the damage caused to the electronics of the IED cannot cause detonation.*

In sum, the successful use of IEDs involves a chain of events, any one of which can be attacked. Successful attacks on the early parts of this chain are preferable as they stop current attacks *and* the insurgent ability to generate future attacks. Continuous tracking of targets in the urban environment and over extended periods of time is very useful for discerning and destroying the networks that make attacks possible. Capturing the personnel involved is preferable to killing them because of the intelligence they can provide. The core of this problem is 90 percent intelligence, 10 percent engagement. The defusing, premature detonation, capturing, or killing piece is less difficult—it's finding the individuals responsible that's hard.

In spite of the considerable expense and effort, over four years, IEDs continue to be the primary insurgent tool for attriting US forces in Iraq.

[S19]   Rotate personnel in a fashion that strikes a proper balance between troop morale and fatigue and the preservation of experience

Long-duration IW operations can stress a rotation system by requiring tradeoffs between the loss of experience and alleviating fatigue. Insurgencies entail especially demanding learning curves. Not only does one have to master the structure, TTPs, and capabilities of the insurgents, but a connection has to be made with the local population. Personal relationships with the population are both time-consuming to build—but they are essential for IW. Overlap must be built into the rotation plan to allow the veteran personnel to pass on their experi-

ences. Rotation schemes should recognize that all military personnel do not deal with the same learning curve. The time needed to learn and build relationships, and the value of those relationships all vary for different personnel. For unit leaders especially, the value of their relationships with the HNG officials, military officers, and population may warrant less frequent rotation out of the theater.

[S32] Construct new detention facilities and organizations as needed

If the existing amount of detention space is insufficient or substandard, the existing facilities will need expansion, improvement, or augmentation with new facilities.[129] If detention space is at a premium, it might raise the bar too high for the holding of suspected insurgents or burden tactical units by requiring they hold detainees for extended periods.[130] For example, the standard might be set that only insurgents actually carrying weapons be detained, while others without weapons would not be detained. Such a scenario would cause many insurgents who had contact with US or coalition forces to avoid capture. The insurgents would eventually learn what the standard was for being detained, and modify their

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[129]   "The fact that the detention operation mission for all of Iraq is now commanded by a 2-star general who reports directly to the operational commander, and that 1,900 MPs, more appropriately equipped for combat, now perform the mission once assigned to a single under-strength, poorly trained, inadequately equipped, and weakly-led brigade, indicate more robust option should have been considered sooner." Schlesinger, *Final Report*, p. 51. "Anticipating continued growth in the detainee population, U.S. commanders have decided to expand three existing facilities and open a fourth, at a total cost of about $50 million." Bradley Graham, "U.S. to Expand Prison Facilities in Iraq," *Washington Post*, 10 May 2005, p. A15. "The number of prisoners held in U.S. military detention centers in Iraq has more than doubled since the autumn, climbing from 5,400 in September to more than 10,800 now, according to the latest Pentagon figures." In response DoD was sending 700 extra personnel to handle those detainees. Bradley Graham, "700 More Troops to be Sent to Iraq," *Washington Post*, 18 August 2005, p. A13.

[130]   In April 2005, the Abu Ghraib prison became so full that US authorities stopped accepting new inmates for a few days. The total number of detainees in US facilities in May of 2005 was 11,350. Graham, "U.S. to Expand Prison Facilities in Iraq," p. A15. "As noted earlier, instead of capturing and rapidly transporting detainees to collection points, battalions and companies were holding detainees for excessive periods, even though they lacked the training, materiel, or infrastructure for productive interrogation." Schlesinger, *Final Report*, p. 59.

tactics accordingly. A surplus of detention space provides extra time to evaluate suspects and expose cover stories.

[S34]   Create barriers within the country to restrict insurgent movement and logistical support, with minimal disruption to legitimate movement

A capability in need of substantial improvement.

Much like border checkpoints, this type of movement restriction must meet the competing demand of allowing legitimate civilian movement.[131] In fact, the demand is even greater in this case to have little on no effect on civilians.[132] This may require a capability that focuses more in detection-cued action rather than a passive "dumb" barrier system that requires all traffic to slow or stop. Passive barriers or checkpoints may be useful in some cases but the overall system has to be a smarter and less disruptive to civilian movement than an international border crossing would be. The semi-automated system used on some US roads to collect tolls might be a useful model.

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[131]   Then again, in some scenarios the rules of engagement may allow for the severe disruption of civilian movement. A case in point would be South Africa. In 1900, the British instituted a systematic campaign of containment, scorched earth, and interment. They constructed nearly 8,000 blockhouses, manned by over 50,000 men, and linked them with thousands of miles of barbed wire. While obviously requiring extensive resources, this system played an important role in the ultimate British victory. The Boers depended on mobility for logistical support and to avoid confrontation with superior British forces. The blockhouse-wire system specifically targeted this core capability. Gregory Fremont-Barnes, *The Boer War, 1899–1902*, (Oxford, UK: Osprey, 2003), p. 62–65.

[132]   In mid-January 2006, a USMC unit assigned to Anbar ringed the town of Rutbah (population of about 20,000) with a 10.5-mile, 7-foot high, and 20-foot wide sand berm. The berm had only three cutout access points, each a checkpoint manned by US and Iraqi troops. In the first few months after the berm was constructed, the average number of roadside bombings per month dropped from twenty-nine to five. However, this restricted access seriously affected the population. Residents routinely had to wait one to three hours to get in and out of the checkpoints. About 500 vehicles passed through the busiest checkpoint daily. Antonio Castaneda, "Sand Berm Helps Stem the Tide of Insurgents," *San Diego Union-Tribune*, 6 March 2006.

An exception to this need for facilitating civilian movement would be the barriers around military bases or other key facilities. The volume of civilian movement in and out of these areas is lower and can be controlled through checkpoints. Aside from checkpoints, a base or facility perimeter simply needs to stop all movement. For this use relatively unsophisticated items like mines, wire, and walls are useful.[133]

Civilian law enforcement provides a useful model for how this is done. While civilian law enforcement will occasionally use roadblocks (e.g., sobriety checkpoints) that stops all traffic, they realize such a disruption to the normal flow of traffic must be the exception rather than the rule. Their standard mode of operation is to observe traffic for (1) unlawful behavior or (2) particular vehicles or individuals that are "wanted." This, of course, puts a great demand on intelligence collection and distribution. All cars need to have license plates; the police need to keep up-to-date records on every car and car owner in their patrol vehicles. If it becomes known that a particular car was used in a crime, the identity of that car—should be pushed in real time to every officer, no matter his or her location. The equation is, the less information one has, the more disruption of legitimate civilian movement is needed to impede the insurgents and criminals.

Today's barriers are labor intensive, poorly suited to filter out insurgents, and too expensive and disruptive to the population for comprehensive employment. They can be effectively employed in small areas, like around US bases, but they are less suitable for larger-scale employment.[134]

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[133] Soviet forces in Afghanistan were relatively successful in protecting their bases from insurgent infiltration by the heavy use of anti-personnel mines in thick belts. "One seasoned Afghan veteran praised the Soviet use of mines. They were so thickly strewn around the major bases and so well concealed that the Mujahideen dared not attempt to penetrate by ground attack." Robert H. Scales Jr., *Firepower in Limited War*, rev. ed., (Novato, CA: Presidio, 1995), p. 169.

[134] *See* footnote 128 (Rosen, *In the Belly of the Green Bird*).

[S36] Supply personnel, equipment, consumables, and funding to operate detention facilities while managing them

The value to Blue of capturing insurgents can be substantially eroded if there is no system to handle properly those captured.[135] These facilities need to securely house detainees, limit the ability of detainees to network with their fellow insurgents in and out of the facility, process them for intelligence[136], and treat the detainees in a manner that does not violate cultural or international norms. Depending on the scenario the host government may already operate a system that meets this criterion, but that should not be assumed. DoD may need some capability to step in and augment the host nation's system.

A comparison with a large US civil prison system may be useful. In 2003, the Texas state prison system averaged 5.4 inmates per employee.[137] At one point, the ratio at Abu Ghraib was seventy-five inmates per military police (person), making it difficult to even keep track of inmates.[138] Depending on the scenario, the greatest shortage may be in MP manpower or acceptable facilities space.

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[135] "There was ample evidence in both Joint and Army lessons learned that planning for detention operations for Iraq required alternatives to standard doctrinal approaches. Reports from experiences in OPERATION ENDURING FREEDOM and at Guantanamo had already recognized the inadequacy of current doctrine for the detention mission and the need for augmentation of both MP and MI [military intelligence] units with experienced confinement officers and interrogators." Schlesinger, *Final Report*, p. 48.

[136] When the abuses occurred at Abu Ghraib, some translators were already on their second or third tours, and some of the detainees had been there for more than ninety days before their first interrogation. Schlesinger, *Final Report*, p. 29. For a description of how insurgent activities continued inside detention facilities, see Steve Fainaru and Anthony Shadid, "In Iraq Jail, Resistance Goes Underground," *Washington Post*, 24 August 2005, p. A01.

[137] Texas Department of Criminal Justice, *Texas Department of Criminal Justice: Annual Review 2003*, pp. 17, 23. Accessed 09 May 2005 at http://www.tdcj.state.tx.us/publications/ publications-home.htm.

[138] Seven thousand inmates and ninety-two MPs. Schlesinger, *Final Report*, pp. 10, 60.

[E6]   Provide fire support in the urban environment with minimal collateral damage

Urban operations place six key demands on fire support, which differs from the demands of non-urban operations.

Rapid reaction: The shorter engagement ranges common to urban operations demand faster reaction. The infantry squad caught in an insurgent ambush, with hostiles fifty meters away on three sides, can't wait ten minutes for fire support. The need for speed also relates to the tendency of insurgents to break quickly contact.[139]

Accuracy: These same engagement ranges demand fire support that can be used safely in proximity to friendly forces.

Minimum collateral damage: The usual presence of civilians on the battlefield and the need to minimize collateral damage both reinforce a need for minimally destructive munition options.[140] Aside from using the population as cover, insurgents may also use valuable infrastructure for protection.[141] The November 2004 assault on Fallujah by US forces did extensive damage to the city, damage that will require repairs by the US or Iraqi government.

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[139]   Chechen forces in Grozny would conduct hit-and-run attacks with their own artillery, to which Russian forces had great difficulty reacting. The Chechens would disperse before the Russian fire support system could respond. MAJ Gregory J. Celestan, "Red Storm: The Russian Artillery in Chechnya," *Field Artillery* (January–February 1997), pp. 42–45.

[140]   As of 2006, the US Air Force is studying the utility of a weapon called the Very Small Munition (VSM). Its primary purpose would be urban close air support; and if early efforts look promising, a critical technology demonstration could start in 2008. VSM is envisioned as a 18- to 25-kg weapon, with rocket boost, GPS guidance, two-way datalink, and semi-active laser seeker. The weapon would be carried in a nine-pack launcher with a total weight of no more than 570 kg. With its rocket boost, it would have a range of 20 kilometers if launched from 15,000 feet. An A-10 could carry as many as 54 of these weapons, and a Predator B could carry up to 24. With continued funding, the rough service entry date is thought to be 2015. Bill Sweetman, "A Different Kind of Smart: Weapons Becoming Autonomous and Precise," *Jane's International Defense Review*, 1 February 2006.

[141]   The Marine CAP program in Vietnam was popular with the population for several reasons, one being that the presence of US personnel on the ground meant the village was protected from indiscriminate US air and artillery strikes. West, *The Village*, p. 264.

Overcoming urban cover: In some cases, greater destructive force is called for, that is, fire support options that can overcome the excellent cover offered by the urban landscape. A reinforced concrete building provides great cover unless the munition can level the structure or use the strength of the structure to contain greater effects inside of the building (e.g., thermobaric munitions inside a building).[142]

Gun elevation and depression: For direct fire systems, the vertical nature of urban landscapes can require greater elevation and depression angles to engage targets in buildings or basements.[143]

Variable munition trajectories: The "urban canyon" effect can result in buildings blocking the flight arc of fire-support munitions.[144] To allow for fire support in the maximum number of scenarios, some munitions with variable trajectories should be available.

In IW a further complication will be the need to provide this fire support across Service, national, and military–non-military boundaries. The diverse composition of the Blue team will generate a wide range of customers in need of fire support.

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[142] The two most useful rounds for IW for the Abram tank's 120mm main gun are the Multi-Purpose Anti-Tank (MPAT) and canister rounds, both relatively new additions to the inventory. For commentary on the antipersonnel utility of the MPAT round, see Zucchino, *Thunder Run*, pp. 14, 47. The new M1028 120mm canister round was type classified standard in June 2005. While canister rounds for tank main guns is nothing new (German and Soviet tanks used them in World War II), this is a first for the Abrams. This type of round will give the Abrams a significant increase in anti-personnel firepower, an important consideration in IW. "XM1028 120mm Canister Tank Cartridge." Accessed 13 April 2006 at http://www.global-security.org/military/systems/munitions/m1028.htm.

[143] The Abrams and Bradleys used for the April 2003 "thunder runs" in Baghdad had some difficultly elevating their main guns sufficiently to engage targets in taller buildings. Zucchino, *Thunder Run*, p. 14. For additional discussion of the M1 Abrams limitations, *see* Sergeant First Class Ira L. Partridge, "Modifying the Abrams Tank for Fighting in Urban Areas," *Armor* (July–August 2001): pp. 19–24.

[144] Vick, *Aerospace Operations*, pp. 107–110.

[E7]   Counter-sniper

Sniping is a common tool of irregular forces for several reasons. First, it requires a minimum of manpower. Two, it is more effective because of the inherent stealth of irregular forces. Three, it minimizes the amount of contact with superior regular forces. Four, as a key venue in the battle for the population, urban terrain provides excellent cover and egress opportunities for snipers.[145] Urban environments provide ideal cover for snipers with abundant elevated and concealed firing positions, noise, short lines of sight that make breaking contact easy, and a mass of human activity to blend in with.[146]

The tools to protect Blue from this threat include body armor, vehicle armor, systems for detecting a sniper (both before and after firing), and Blue's own snipers. Some important metrics for countering snipers would be speed of detection, accuracy of detection, detection across a range of clutter conditions, detection range, ability to detect pre-shot, and automated return fire capability.

[E8]   Conduct combined-arms operations at the small unit level

The nature of urban combat and IW operations often preclude the use of large formations. Narrow streets and short lines of sight make it difficult for tanks to support infantry (and vice versa) unless they are very close. This need for proximity can be solved by integrating the various arms at a low level. If one platoon of armor can work effectively with one platoon of infantry, they can react faster

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[145] British forces operating in Northern Ireland found snipers to be more effective in urban environments than they were in rural settings. Marine Corps Intelligence Activity, *Urban Warfare Study*, p. 45. The Russians found snipers essential but in short supply in Grozny. The Israelis found snipers extremely cost-effective in Lebanon. Marine Corps Intelligence Activity, *Urban Warfare Study*, pp. 15, 28–29.

[146] When assaulting Grozny the second time (in February 2000), the Russians began by inserting more than 200 snipers into the city. Timothy L. Thomas, "Grozny 2000: Urban Combat Lessons Learned." *Military Review* (July–August 2000): p. 51. In the second Chechen conflict, Russian forces initially tried to use conscript troops for snipers. However, these troops proved unequal to the task and were replaced by professional personnel from the special forces. Aldis, *The Second Chechen War*, p. 107. During World War II, one Soviet Army had 400 snipers in Stalingrad who collectively killed over 6,000 Germans.

than a larger organization would.[147] There are fewer layers of command to slow reactions or complicate communications. This mixed-arms capability needs to exist down to at least the company level.[148] The key issues are the extent of combined-arms training at the small-unit level (e.g., company, platoon), equipment limitations that can inhibit this type of cooperation and any doctrinal impediments.[149]

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[147] For a recent example of the critical role armor can play in an urban environment, *see* Tim Pritchard, *Ambush Alley: The Most Extraordinary Battle of the Iraq War*, (New York: Ballantine, 2005). For a discussion on the role of armor in the urban battles of Hue (1968) and Khorramshahr (1980), see LTC R. W. Lamont, "Tale of Two Cities—Hue and Khorramshahr," *Armor* (May–June 1999): pp. 24–26.

[148] Army FM 90-10-1 states, "Tank-heavy forces could be at a severe disadvantage during combat in built-up areas, but a few tanks working with the infantry can be most effective, especially if they work well together at the small-unit level." US Department of the Army, *An Infantryman's Guide to Urban Combat*, Field Manual 90-10-1, (Washington, DC: US Government Printing Office, 1993), p. 8-36. One of the "foremost" findings of the Marine Corps' Project Metropolis was the importance of achieving the combined-arms effect in MOUT. During the URBAN WARRIOR experiments, a predominantly infantry force suffered 48 percent casualties. During PROJECT METROPOLIS, the careful application of combined-arms forces resulted in the casualty rate dropping to 21 percent. US Marine Corps Warfighting Laboratory, *Project Metropolis*, pp. 1, 7.

[149] "The guiding principles for the combined arms attack do not change in the urban environment." US Marine Corps Warfighting Laboratory, *Project Metropolis*, p. 17. During operations in Grozny in 1995, Russian forces suffered heavy armor losses (APCs and tanks) initially. These losses dropped substantially once more dismounted infantry was used with the armored vehicles. Lester W. Grau, "Russian-Manufactured Armored Vehicle Vulnerability in Urban Combat: The Chechnya Experience," *Red Thrust Star* (January 1997): pp. 16–19, accessed 07 August 2007 at http://www.fas.org/man/dod-101/sys/land/row/rusav.htm. For a description of how Russian forces pushed artillery and aviation support down to smaller units in the second conflict in Chechnya, see Aldis, *The Second Chechen War*, pp. 92–94. For an article calling for modifications to the Abrams tank to make it more capable of contributing to the combinard-arms team, see Partridge, "Modifying the Abrams Tank for Fighting in Urban Areas," pp. 19–24. In an article recounting experiences in Panama City (1989), MAJ Robert G. Boyko, USA, wrote, "City fighting is truly a platoon and squad leaders' fight." "I cannot say enough about the performance of the Sheridan tanks that supported us." "I found that we had to break down the engineer units unto smaller elements than we normally did in training." MAJ Robert G. Boyko, USA, "JUST CAUSE MOUT Lessons Learned," *Infantry* (May–June 1991): pp. 30–32.

The need for small-unit combined arms extends outside of urban areas. A significant number of small units (e.g., platoons, companies) may be dispersed across rural areas, operating autonomously or working only with indigenous military or police units. In this situation, the driver would not be the difficult urban terrain but rather the need to disperse the troops to protect the population and infrastructure.[150]

[E9]   Clear buildings rapidly, efficiently, and safely for both US forces and civilian inhabitants

Buildings will routinely need clearing, and many of those buildings will house both insurgents and civilians. [151] Insurgents naturally gravitate to this type of terrain because they know it levels the technological playing field. In the indoor engagement, the infantryman of a high-tech western military leaves most of his advantages outside. While technologies like today's body armor and night vision devices do help, the fight is still far more balanced than most for the insurgent. Aside from the extremely short engagement ranges, the large number of hiding places in a building demand considerable time and manpower. A single large building could take a full company hours to clear.[152] Booby-traps are a real danger, as is mistaking civilians for insurgents.

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[150] *See* footnote 123 (Nagl, *Learning To Eat Soup with a Knife*; West, *No True Glory*).

[151] The difficulty in clearing buildings is illustrated by the account of "Pavlov's House" in Stalingrad in 1942. Soviet Sergeant Jacob Pavlov managed to cram sixty troops, anti-tank guns, heavy machineguns, mortars, and snipers into one four-story building. The building held out for fifty-eight days against numerous German assaults. John A. English and Bruce I. Gudmundsson, *On Infantry*, (Westport, CT: Praeger, 1994), pp. 93–94. "A ten-story apartment complex, which we often found in Panama City, is quite an objective for a two-company force. But it can be cleared if the force has six hours, if the encircling force can seal the area, and if the searching force is well organized and trained for clearing buildings. Boyko, "JUST CAUSE MOUT Lessons Learned," p. 30.

[152] In Fallujah, November 2004, one platoon took six hours to clear fifty-four houses. The city measured roughly 5 x 5 kilometers and contained approximately 39,000 buildings. West, *No True Glory*, pp. 257, 270. If a very rough extrapolation was made from those numbers, it would take a force of 2 battalions (9 rifle platoons each), working 16-hour days, 20 days to clear all the buildings in Fallujah.

Central to the problem of building-clearing is the lack of non-line of sight sensors. Almost all the sensors currently in the US inventory today require line of sight. This forces a large number of humans to go room to room, visually checking every room and identifying every person encountered on a case-by-case basis. A secondary problem is ignorance of the building's interior layout. This forces an ad hoc clearing operation.

Some important tools for improving this situation are sensors for (1) detecting all those inside of a building or at least in an adjacent room, (2) detecting weapons inside a structure, and (3) mapping the interior of a building. Other important considerations are non-lethal tools for (1) immobilizing all occupants of a building who can then be sorted combatant vs. noncombatant, and (2) forcing all occupants out of a building. Finally, there are tools for (1) restricting movement inside a building, and (2) for creating new entry points into and within a building.

[E10] Destroy point targets with minimal collateral damage

Killing insurgents is only one of many metrics of success in IW. It's possible to kill insurgents but still incur a net loss to security by excessive collateral damage that causes a greater disruption to society than the insurgents did. If an insurgent at the power plant is killed, but the plant is leveled in the process by Blue, this is a net loss. Insurgents are well aware of these competing demands and will seek to exploit them to their advantage. Historically, insurgents have shown a willingness to sacrifice some of their manpower to entice an opponent into generating collateral damage. This collateral damage can sometimes take the form of civilian casualties. No other action taken by Blue can generate more ill will with the population than this sort of collateral damage. Years of building rapport in a neighborhood can be erased in seconds by one errant munition. Convincing an aggrieved family member that such a loss of life was "for a good cause" will be difficult. The cultures in some countries can require the relatives of the dead to take up arms against Blue.

In some cases, destroying a building is acceptable but not an adjacent structure. In other cases, destroying any more than one room is not acceptable. In a few cases, no amount of damage is tolerable to a structure housing insurgents. These limitations will demand accuracy, a wide range of explosive yields, and

some non-kinetic options. The location of targets will also sometime demand munition flight trajectories of a controlled and variable nature to avoid intervening terrain.

[E11]   Non-lethal tools for separating or keeping separate the insurgents from the civilian population

A capability in need of substantial improvement.

When insurgents have infiltrated a group of civilians separating them is aided by tools for projecting non-lethal effects into mixed groups. Those effects should either (1) incapacitate civilian and insurgent alike to allow friendly forces to then safely separate the two groups, or (2) force all in the target area to relocate to a new area that favors friendly forces.[153] Preferably, these effects could be generated in an NLOS manner and would place civilians at minimal risk. Placing the civilian population at zero risk, while desirable, is probably not technically feasible. The criteria for judging an acceptable level of risk should factor in the relative risks of (1) taking no action or (2) separating out the insurgents from the population using lethal means.[154]

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[153]   US forces in Hue (1968) used tear gas to clear North Vietnamese Army infantry from a building. CPT Jon E. Tellier, USA, "The Battle for Hue." *Infantry* (July–August 1995): p. 24. However, the US ratification in 1997 of the Chemical Weapons Convention calls into question the legality of this tactic in the future. The fifth General Obligation under Article I of the Chemical Weapons Convention states, "Each State Party undertakes not to use riot control agents as a method of warfare." *Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and Their Destruction, General Obligation No. 5 under Article I.* In 2005, Israeli forces used a vehicle-mounted non-lethal system against rioting Palestinians and Jewish sympathizers. The system emitted sound waves that made people dizzy and nauseous. Few details were revealed by the system but a reporter at the scene stated that covering her ears didn't protect her from the effects. Amy Teibel, "Israel May Use Sound Weapon on Settlers," Associated Press, 10 June 2005, accessed 10 June 2005 at www.washingtonpost.com.

[154]   "U.S. military doctrine has yet to confront the necessity of pacifying a major city while protecting its citizens." Russell W. Glenn, ed., *Combat in Hell*, (Santa Monica, CA: RAND Corporation, 1996), p. 16. For a discussion of the tactical to strategic potential of non-lethals, *see* Dennis B. Herbert, "Non-Lethal Weaponry: From Tactical to Strategic Applications," *Joint Forces Quarterly* (Spring 1999): pp. 87–91.

Once a portion of the population is free of insurgents, non-lethal barriers could serve to keep it that way. The non-lethal nature of these barriers is key: their proximity to civilians demands some tolerance for inadvertent contact. If a few minor missteps by civilians produces bodies, the collateral damage costs will quickly outweigh any tactical benefit. A clear marking of these barriers is important for the same reason. These barriers should come in two versions: (1) long-duration semi-permanent structures or (2) quick-reaction, short-term equipment. The long-duration type could be used to seal the perimeter of a city (except at approved checkpoints) once that city was cleared of insurgents. The temporary barriers could be used for hot pursuit or search-and-cordon operations.

Some important metrics for such a capability are the speed of set-up, portability, durability for extended use, costs low enough to allow extensive employment, chance of injury or death with contact by civilians,[155] chance of breach, utility versus vehicles, and sustainment demands.

DoD is still forced to respond with lethal force on many occasions when facing a mixed insurgent-civilian crowd; non-lethal barriers haven't advanced much since World War I. Non-lethal weapons are not yet a part of most checkpoints in Iraq.

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[155] The term "non-lethal," while widely used and recognized, is a bit misleading. "Less-than-lethal" would be more accurate. Most systems capable of stopping physical movement have a chance of doing harm. To expect a zero chance of injury or death is unrealistic. Across the civilian population will be a wide range of age, size, and health. A system that can physically stop a large adult male may place a small child or ill elderly person at some risk for injury or death. This is a policy hurdle that requires these systems be compared to either no action on the part of friendly forces or else lethal force, rather than some notional "perfect" solution with zero risk.
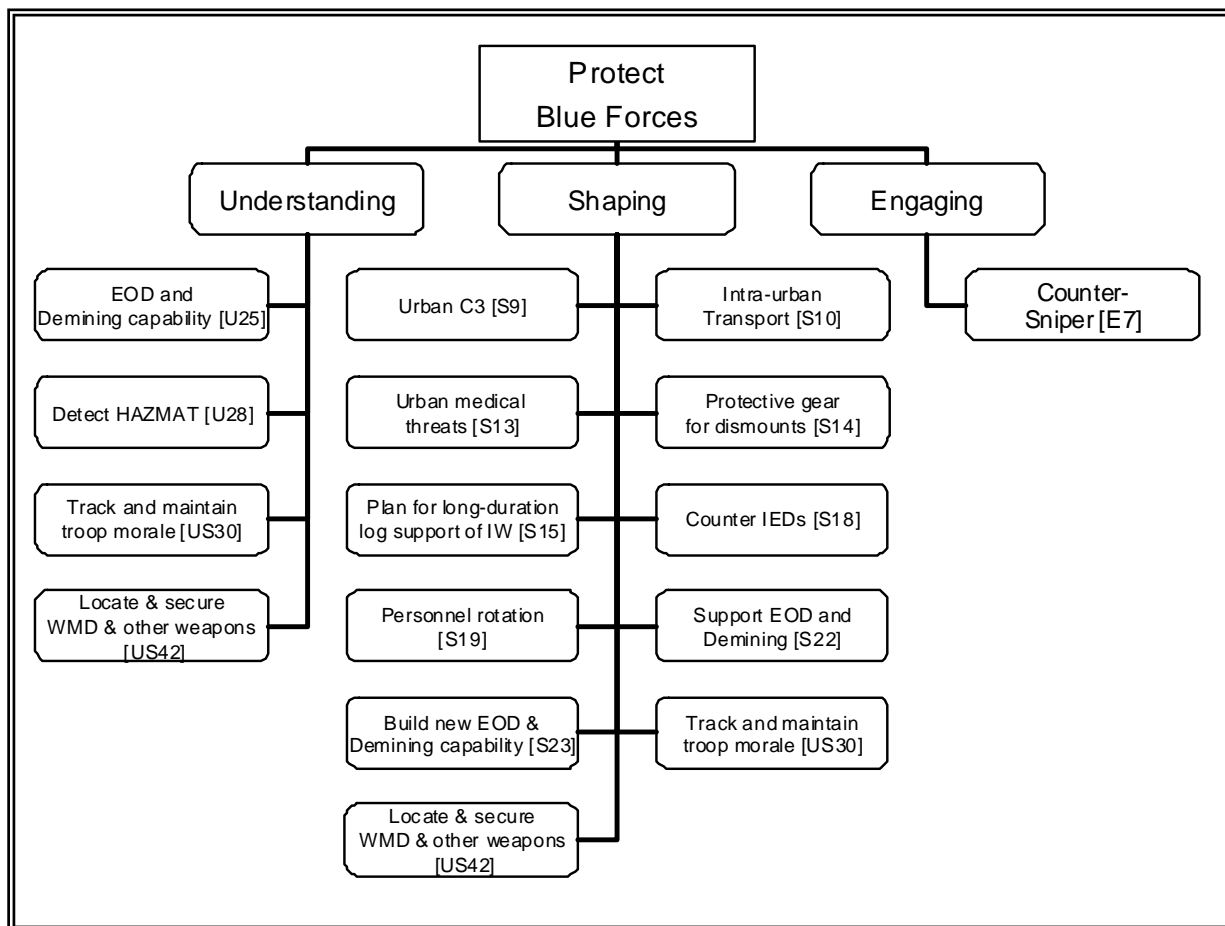
Protect
Blue Forces

Understanding

Shaping

Engaging

EOD and
Demining capability [U25]

Urban C3 [S9]

Intra-urban
Transport [S10]

Counter-
Sniper [E7]

Detect HAZMAT [U28]

Urban medical
threats [S13]

Protective gear
for dismounts [S14]

Track and maintain
troop morale [US30]

Plan for long-duration
log support of IW [S15]

Counter IEDs [S18]

Locate & secure
WMD & other weapons
[US42]

Personnel rotation
[S19]

Support EOD and
Demining [S22]

Build new EOD &
Demining capability [S23]

Track and maintain
troop morale [US30]

Locate & secure
WMD & other weapons
[US42]

Figure IV–3. Protect Blue Forces Mission

C. Mission: Protect Blue Forces

[U25] **Map the current EOD and demining capabilities, their ongoing effectiveness, and the current and future need for them**

In some cases, substantial amounts of abandoned munitions and large mined areas must addressed. Both require a capability that normally does not exist in civilian society. The ability to deal with the isolated bomb threat is different than dealing with an abandoned warehouse of 4,500 120mm mortar rounds, or marked and unmarked minefields scattered across the country. However, some host-nation militaries may already have an EOD and demining capability that needs merely some technological support. In other cases, these capabilities may need to be built from the ground up.

- Factors affecting the **EOD problem** will be the number of munitions outstanding, their degree of dispersal, and the proximity of caches to populated areas. EOD effectiveness metrics could include safety for EOD personnel and civilians, response time, thoroughness, and efficiency with regard to needed personnel and equipment.

- The **demining problem** will be affected by the type of mines, if the fields are marked, the size of the areas affected, and the primary use of the areas impacted by mines. Demining effectiveness metrics could include safety for demining personnel and civilians, thoroughness, speed of clearing, and efficiency with regard to needed personnel and equipment.

An ineffective EOD or demining effort could have serious economic and/or public opinion implications in addition to negatively impacting US military operations.[156] If EOD or demining efforts were poorly conducted, US military personnel could be endangered when US personnel were in the area, of if US personnel later passed near improperly disposed munitions. The US military pos-

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[156] An Iraqi civilian: "His neighborhood was frustrated with American troops exploding ammunition dumps nearby, shaking their walls, breaking their windows, and terrifying them." Rosen, *In the Belly of the Green Bird*, p. 43.

sesses significant expertise in EOD and demining, and would be well positioned to evaluate the efforts of others. Knowledge of any problems would allow for corrective action or preparation for the implications.

The problem of IEDs will be covered separately under *Counter IEDs.*

[U28]   Detect HAZMAT

Urban areas often have industrial facilities housing substantial quantities of hazardous chemicals. In the chaos and possible societal breakdown of an insurgency, these facilities can fall into disrepair, increasing the danger of leaks. Insurgents might decide causing such leaks furthers their goals. Being able to detect those leaks protects both friendly personnel and the civilian population.[157]

[US30] Track and maintain Blue troop morale during long duration campaigns

Long-duration counterinsurgencies can put a serious strain on deployed personnel. Living conditions are often harsh, the separation from families takes a toll, and the stress of living in a "no-safe rear area" battlefield accumulates. Factors to consider include overall living conditions (e.g., housing, food), contact with family (e.g., phone, e-mail, regular mail), stress conditions, and in-theater leave options. Exposure to US and foreign media can also have a significant effect on morale.

[US42] Locate and secure/destroy any WMD or other weapon stocks not held securely by the host government

See description under *Neutralize Red Forces.*

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[157] In 1984, an industrial accident in Bhopal, India, released a cloud of methyl isocyanate that killed approximately 3,800 people. Accessed 09 December 2006 at http://www.bhopal.com/chrono.htm. In response to the accident and legislation passed by the US Congress, the US Environmental Agency now has a Toxics Release Inventory Program that inventories all hazardous materials and their locations, and passes the information along to the public and local governments. Toxics Release Inventory (TRI) Program, accessed 12 May 2005 at http://www.epa.gov/tri/.

[S9]   Urban C3

See description under *Neutralize Red Forces*.

[S10]   Intra-urban transport capability (land or air) for moving forces, supplies, and wounded to/from isolated locations in a city

See description under *Neutralize Red Forces*.

[S13]   Protect personnel from disease, psychological stress, and hazardous materials

Urban environments present some unique health threats to personnel. The high concentration of people can act as a breeding ground for diseases, many of which may be new to the US soldier's immune system.[158] In many cases, the on-going conflict may have damaged the existing public heath system and increased those disease threats. Concentrating the population into refugee camps could also increase the disease threat. Two other sources of disease could be the sewers that US forces may have to clear, and decomposing bodies not yet cleared. Urban industrial facilities can also be damaged, leaking hazardous materials and putting personnel and the population at risk.

Aside from these hazards, the psychological strain on personnel from urban combat operations can be considerable. The historical trend is that troops involved in urban combat operations tend to "burn out" faster when compared to most types of combat.[159] These personnel will face the strain of extensive close

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[158] Marine Corps Intelligence Activity, *The Urban Century: Developing World Urban Trends and Possible Factors Affecting Military Operations* (Quantico, VA: US Marine Corps, 1997) pp. 4–5. The *Handbook for Joint Urban Operations* also describes the health threat in the form of cities with poor infrastructure to Blue personnel. US Department of Defense, Joint Staff, *Handbook for Joint Urban Operations* (Washington, DC: US Government Printing Office, 2000), p. II-2.

[159] Timothy L. Thomas and Major Charles P. O'Hara, USA, "Combat Stress in Chechnya: The Equal Opportunity Disorder," *Army Medical Department Journal* (January–March 2000). *See also* Marine Corps Intelligence Activity, *The Urban Century,* p. 25. *See also* US Department of the Army, *An Infantryman's Guide to Urban Combat*, p. I-6.

combat and having to differentiate constantly civilian from insurgent. The paucity of "safe" rear areas will contribute to this sense of a stress level that is building up.

[S14]   Protect dismounted personnel from small arms, fragmentation, and blast

Urban environments require personnel to spend a substantial portion of their time on foot for several reasons. First, vehicles can't go everywhere. Second, in an RPG-rich environment, it is often not safe to stay in a vehicle when attacked. Third, the pursuit of dismounted insurgents is sometimes best done by one's own dismounted infantry. Fourth, communication with the local population is much easier on foot. Fifth, foot patrols can be less disruptive to the population.

However, with all that time on foot, the troops are more likely to be engaged by small arms or encounter IEDs with only their own protective kit to protect them. High-quality protection is needed by the infantry, and this need extends to support personnel as well.[160] The lack of "safe" rear areas means most deployed personnel are vulnerable to these close-range engagements and need to be protected accordingly.

This protective gear needs to focus on small arms and fragmentation, with secondary attention to protecting troops from the "hard and sharp" aspects of the urban environment (e.g., diving onto concrete or broken glass). Obviously, the larger portion of the body protected, the better; but weight and flexibility limitations will constrain this. Preference should be given to protecting the vital organs, head, and eyes. A future point of concern may be thermobaric weapons, which kill

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[160]   In urban combat, 90 percent of engagements occur at 50 meters or less. US Department of the Army, *An Infantryman's Guide to Urban Combat*, p. 8-1. Israeli forces in Lebanon in 1982 estimated that their casualties would have been 20 percent higher had their personnel not worn flak jackets. US Marine Corps Intelligence Activity, *Urban Warfare Study*, p. 30. The widespread use of new body armor for US troops in OPERATION IRAQI FREEDOM has paid substantial benefits. The battalion surgeon for one of the units holding a key highway interchange during the April 2003 thunder runs noted a pattern to the wounds suffered by the troops. "Remarkably, there were no head wounds, no sucking chest wounds, no wounds to vital organs." Zucchino, *Thunder Run*, p. 188.

with heat and pressure. They were used successfully in Chechnya by both sides; a growing number of munition manufacturers are including the option of thermobaric warheads for urban operations. Thermobaric weapons are attractive for use in urban combat because they take the cover provided by a structure and use it against those inside: the structure magnifies the blast by containing it. This type of threat is not addressed by conventional body armor.[161]

[S15]   Include in planning the unique logistical demands of long-duration IW and urban operations

See description under *Neutralize Red Forces*.

[S18]   Counter IEDs

A capability in need of substantial improvement.

See description under *Neutralize Red Forces*.

[S19]   Rotate personnel in a fashion that strikes a proper balance between troop morale and fatigue and the preservation of experience

See description under *Neutralize Red Forces*.

[S22]   Conduct EOD and demining and assist other Blue doing the same

Large weapon caches should be handled with great care: often, they will be proximate to populated areas. Considerable ill will can be generated if destruction of these caches kills or wounds civilians or otherwise negatively affects their lives or property.[162] Additionally, the rapid and through completion of EOD ef-

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[161] A Marine Corps after-action report on PROJECT METROPOLIS stated, "Existing force protection equipment and doctrine must be re-evaluated in light of the emergence of thermobaric weapons." US Marine Corps Warfighting Laboratory, *Project Metropolis*, Enclosure One, p. 3.

[162] "The residents of Zafaraniya have particular reason to distrust Americans. U.S. troops had assembled an ammunition dump in the fields a few hundred yards outside the densely packed neighborhood and were detonating old Iraqi munitions there. Residents say the explosions

(Continued)

forts will act to deny the insurgents one more source of weapons. Demining efforts need to be fast, efficient, safe and thorough. A list of priorities will be needed for mine clearing based on threat to the population, what the land was used for, and ease of clearance.[163] The creation of such of list should give serious consideration of the wishes of the population.

[S23]   Organize, train, and equip new EOD and demining organizations as needed

If the indigenous capabilities available for EOD and demining are insufficient, then a new capability should be created. This can come in the form of either enhancing or expanding existing organizations with this capability, bringing in other units or organizations, or creating new units or organizations. For demining, a key indicator that additional capability is needed would be excessively long timelines to clear important areas.

[E7]   Counter-sniper

See description under *Neutralize Red Forces*.

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were rattling their walls, shattering their windows and frightening their children, and that U.S. officials were unresponsive to their complaints." Paul Wiseman and Vivienne Walt, "Hostility Toward U.S. Troops Is Running High In Baghdad," *USA Today*, 7 May 2003, p. 1.

[163] In the late 1990s, Chechnya was suffering the aftereffects of the mid-1990s war. "Approximately 5,000 hectares, 15 percent of the republic's arable land, was strewn with landmines, which greatly affected agriculture, reducing output and depriving the population of another avenue of legitimate employment." Aldis, *The Second Chechen War*, p. 15.
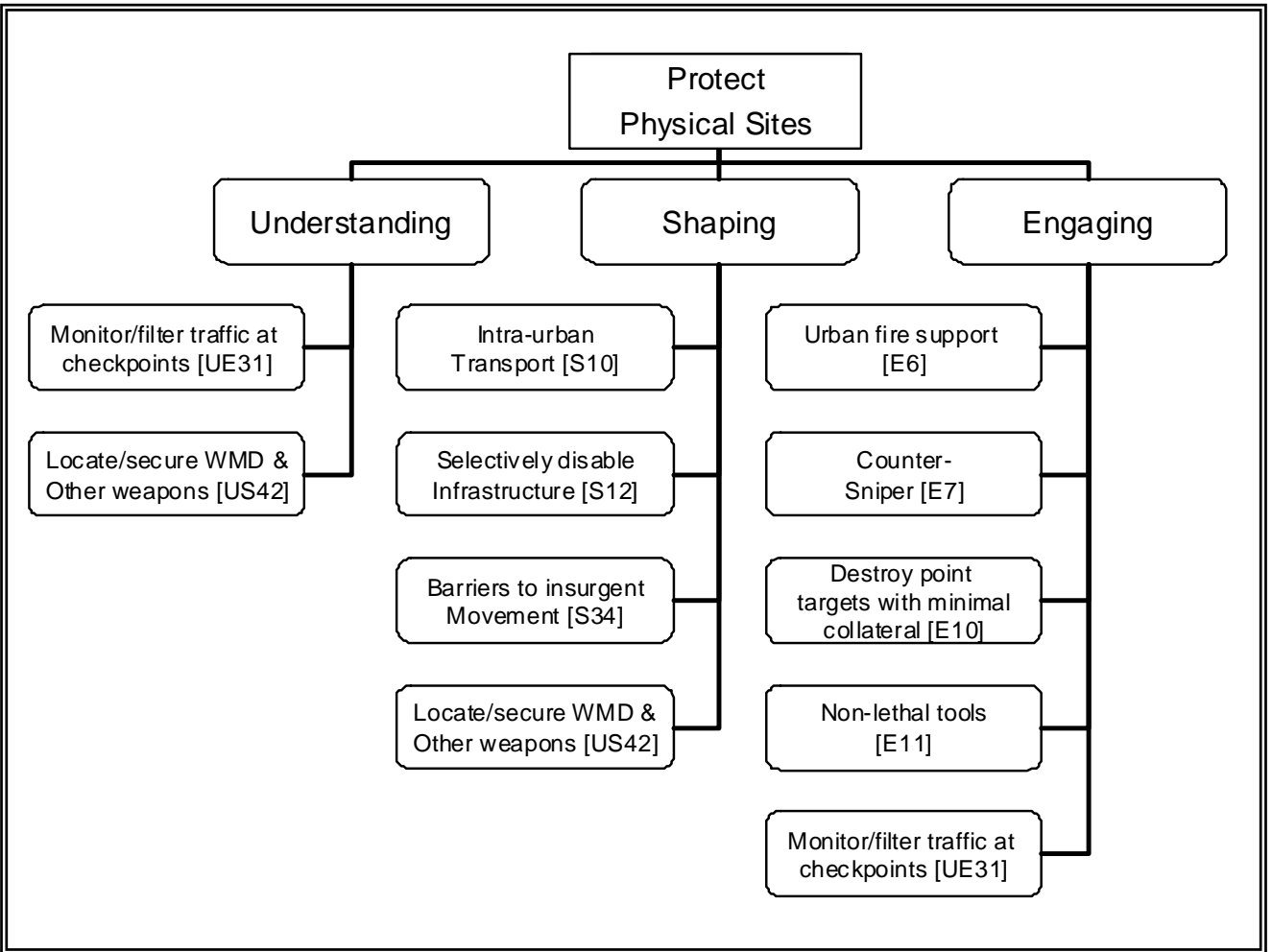
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Figure IV–4. Protect Physical Sites Mission

D. Mission: Protect Physical Sites

[UE31] Monitor and filter traffic at approved border-crossing locations and other locations with minimal effect on legitimate commerce and travel

See description under *Neutralize Red Forces*.

[US42] Locate and secure/destroy any WMD or other weapon stocks not held securely by the host government

See description under *Neutralize Red Forces*.

[S10] Intra-urban transport capability (land or air) for moving forces, supplies, and wounded to/from isolated locations in a city

See description under *Neutralize Red Forces*.

[S12] Selectively disable utility, transportation, and communications infrastructure for the short term with minimal damage

See description under *Neutralize Red Forces*.

[S34] Create barriers within the country to restrict insurgent movement and logistical support, with minimal disruption to legitimate movement

A capability in need of substantial improvement.

See also description under *Neutralize Red Forces*.

[E6] Provide fire support in the urban environment with minimal collateral damage

See description under *Neutralize Red Forces*.

[E7] Counter-sniper

See description under *Neutralize Red Forces*.

[E10] Destroy point targets with minimal collateral damage

See description under *Neutralize Red Forces*.

[E11] Non-lethal tools for separating or keeping separate the insurgents from the civilian population

A capability in need of substantial improvement.

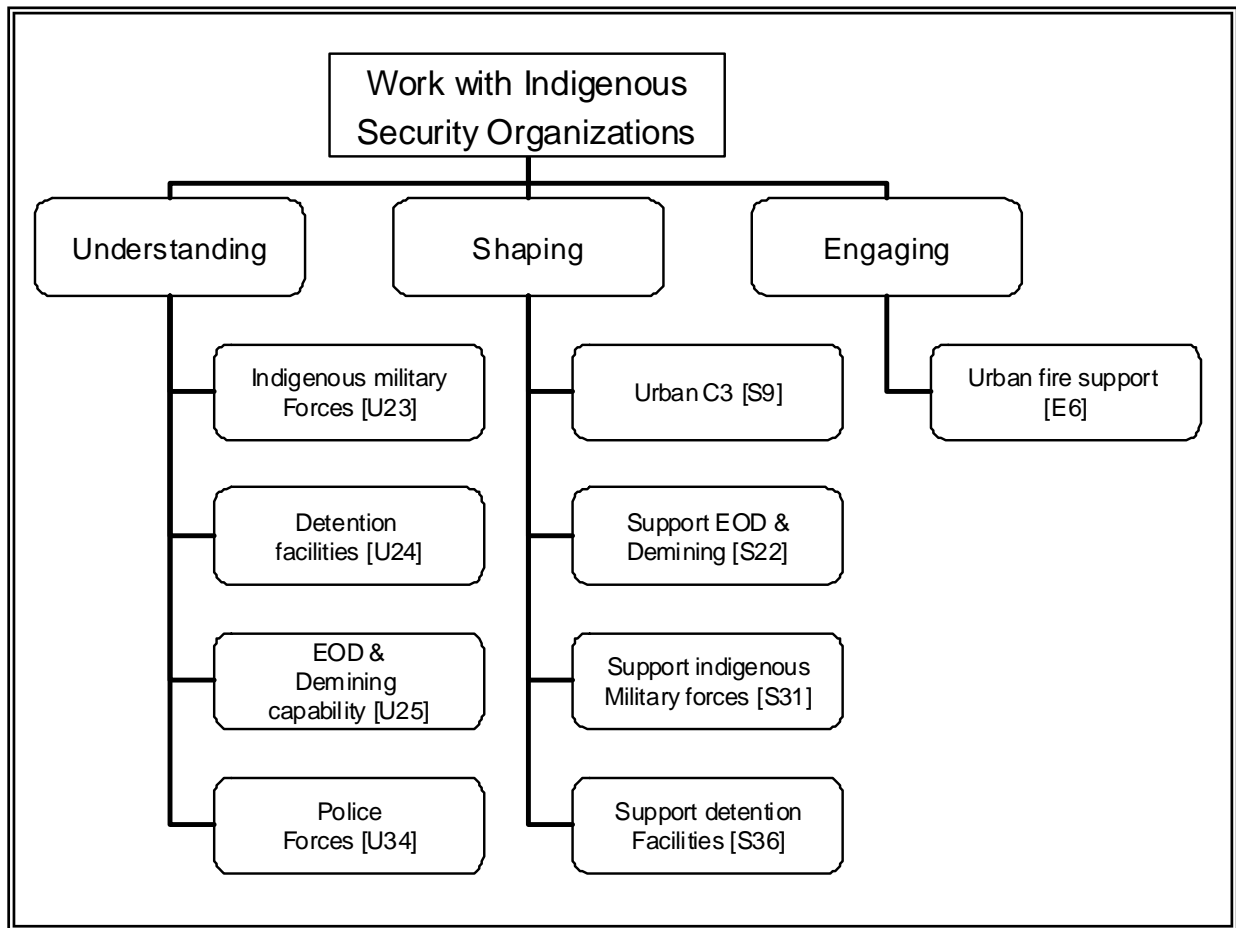*See also* description under *Neutralize Red Forces*.

Figure IV-5. Work with Indigenous Security Organizations Mission

E. Mission: Work with Indigenous Security Organizations

[U23] **Map all relevant details of all current or recently dissolved military forces, their ongoing performance, and the current and future need for such forces**

See description under *Neutralize Red Forces*.

[U24] **Map the current state of all detention facilities, their ongoing performance, and the current and future need for them**

See description under *Neutralize Red Forces*.

[U25] **Map the current EOD and demining capabilities, their ongoing effectiveness, and the current and future need for them**

See description under *Protect Blue Forces*.

[U34] **Map all relevant details of all current or recently dissolved police forces, their ongoing performance, and the current and future need for such organizations**

A capability in need of substantial improvement.

If the United States has arrived to support an existing government, then all the various police organizations supporting that government should be evaluated.[164] An understanding of their form and function is necessary to know how and where US forces can help; and it also illuminates the needed improvements. This mapping needs to address both the inputs and outputs of these organizations. It's not enough to know how many personnel a police force has but also how effective they are and the state of their relations with the population. Given the cen-

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[164] "In practice, this means an early assessment of indigenous justice and reconciliation systems must be made to determine what can be salvaged and built upon and what must be discarded and replaced." Michele Flournoy and Michael Pan, "Dealing With Demons," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 90.

tral role the population plays in any IW effort, a police force alienating them is a serious problem.

Aside from their current condition, the evaluation of these organizations should also include the need for them. Are the current police organizations suitable for the current threat? What elements need expansion? What elements need partial or complete disbanding?[165] Are there trends in the nature of the threat that call for changes in the police?

Criminals and their networks are dynamic. They constantly adapt to their environment and the police—and this requires equally adaptive police. If a particular police force is not achieving its mission, the Blue team needs to know this before the result is chaos. Metrics for police performance could include safety of police personnel, safety of population, relations with the population, volume, and severity of crime and insurgent activity, effects on the economy of crime and insurgent activity, and success in apprehending criminals or insurgents.

For every police force, relations with the rest of the population needs monitoring. Some police groups may become abusive and dictatorial, distorting their original purpose and causing a net loss in security.[166] Offended elements of the population could attribute the abuse to the United States because of US sponsorship and support of these organizations. These elements retaliate by supporting or becoming insurgents or criminals. The performance of the police could also fall short by simply failing to protect the local citizens from criminals. If this is the

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[165] On 25 December 2006, about 1,000 British and Iraqi troops staged a large raid on a police station in Basra. Inside were members of an Iraqi "renegade police unit" and more than 100 prisoners being held by the renegade police. The British forces believed that the prisoners were going to be executed by the police; when the prisoners were finally freed, they showed signs of torture. Seven of the police were killed in the raid. Nancy Trejos and Sudarsan Raghavan, "British Troops Raid, Raze Station House in Southern Iraq," *Washington Post*, 26 December 2006, p. A17.

[166] In October 2006, Iraqi authorities took an Iraqi police brigade out of service and sent it back to training, the reason being "complicity" with death squads. David Rising, "Iraqi Police Unit Linked to Militias," Associated Press, 4 October 2006, accessed 04 October 2006 at www.washingtonpost.com.

case, corrective action should follow, and on occasion that may include dissolution of the police organization.

In a regime-change scenario, all the various police organizations associated with the past regime need attention. While they may no longer exist as openly operating organizations, they can still constitute a threat for several reasons. First, their organization and network of personal relationships can act as a ready-made structure for an insurgency. Second, their loyalty to the previous regime may incline them to act for its restoration. Third, they may still hold substantial weapon inventories. Fourth, many of these former members will be professionals in the art of violence. *In fact, it would be difficult to envision an insurgency arising after the collapse of a regime without at least some involvement of military or police personnel who used to work for that regime.*

While some of these individuals may not be involved in the insurgency, mapping these past organizations is still needed to catch those who are. An understanding should be generated on (1) leadership and personnel, (2) organization, (3) training, and (4) weapons. Discover the leaders and personnel, where they are now, and what are they doing. Diagram the old organization and compare it to organizational patterns emerging in the insurgency. The insurgency's structure may be similar so knowing the old organization may fill in some blanks. The training and weapons of the old organizations will illuminate the capabilities that the insurgents may be tapping. If the dissolved police organizations had large inventories of automatic weapons, have these been found? If some members of the former police had been trained in electronic surveillance and setting up informer networks, where are these policemen now?

A good deal of intelligence may already exist on these organizations. This intelligence needs to be combined with the intelligence learned by US and friendly forces on the ground, and whatever intelligence can be learned from indigenous sources. The local population can be a rich source of information to fill in the blanks. The rank and file of the dissolved police may be able to hide from foreign forces, but the locals will often know who they really are and where. The more of this information available at the very start of US involvement the better, as these personnel will need time to adapt to their new role as the "underdog."

They will be more vulnerable and disorganized in the period just after the collapse of the regime.

The subtleties of police-civilian interaction largely elude DoD, in part because police duties are outside of DoD's focus. While DoD does have MPs, the tasks of the MP units differ significantly from the tasks of civilian police.[167]

For a discussion on how these former members of police organizations can be reintegrated into society, see *Disarmament, Demobilization, and Reintegration.*

[S9]   Urban C3

See description under *Neutralize Red Forces*.

[S22]   Conduct EOD and demining and assist other Blue doing the same

See description under *Protect Blue Forces*.

[S31]   Support existing indigenous military forces with supplies, personnel, equipment and funding while managing them

If DoD was called in, it's likely the host-nation military needs some assistance. This assistance could come in several forms: logistical, training, equipment, funding, intelligence, and even working with the host-nation military in combat operations.

Newly established indigenous units will need extra support as they mature. Once the needs of these units are identified, DoD may have to supply them. This help may come in the form of training personnel, equipment, supplies, intelligence, and/or funding. Key to this is an accurate understanding of what these or-

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[167] Some pre-invasion planning made by the US Department of Justice envisioned sending 5,000 international law enforcement advisors to Iraq after the fall of Saddam. But these plans were dismissed by the US National Security Council, in part because a report from the CIA had claimed that Iraqi police already had extensive professional training under Saddam, and because DoD assumed Iraqi police would stay on the job after the fall of the regime. Chandrasekaran, *Imperial Life*, p. 83–84.

ganizations need to improve their performance, which may differ from what they originally had asked for.

[S36] **Supply personnel, equipment, consumables, and funding to operate detention facilities while managing them**[168]

See description under *Neutralize Red Forces*.

[E6] **Provide fire support in the urban environment with minimal collateral damage**

See description under *Neutralize Red Forces*.

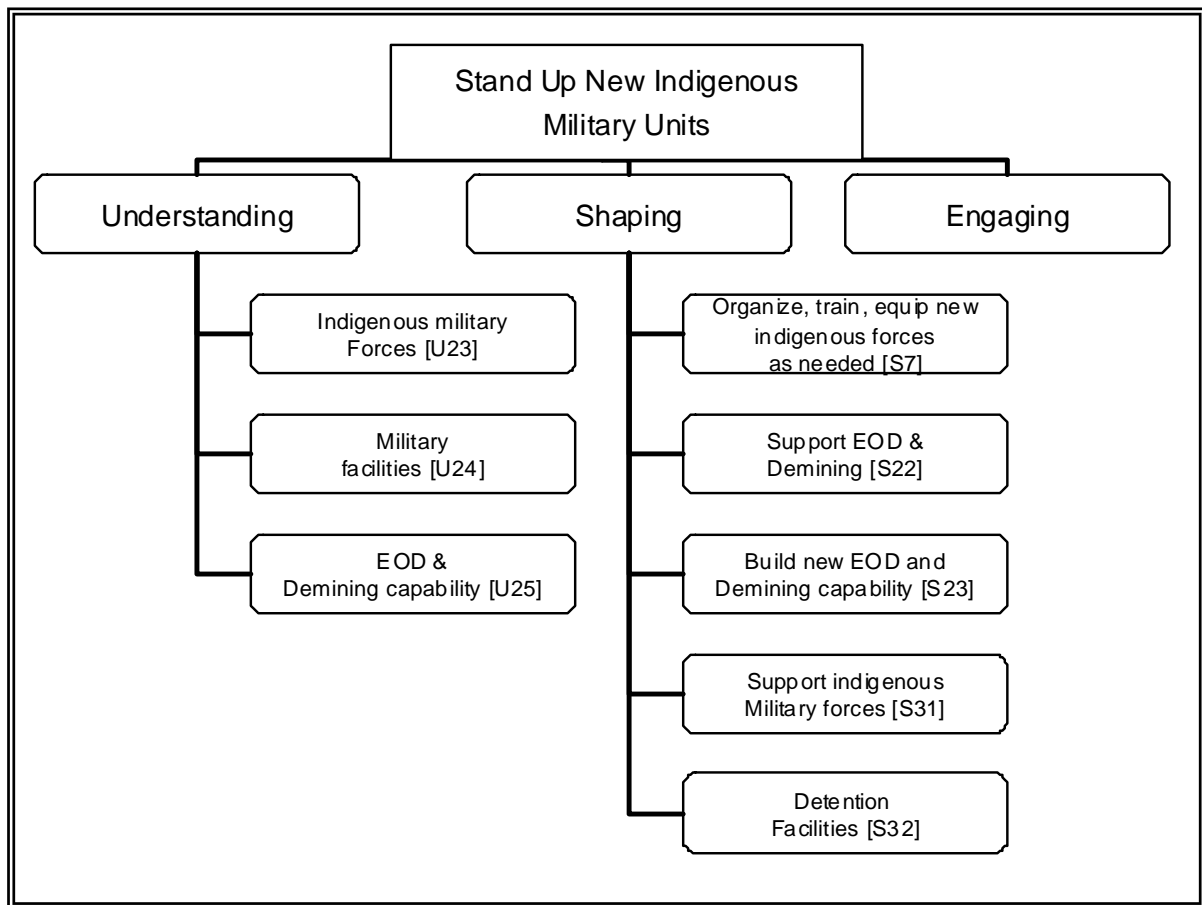[168] *See* footnote 136 (Schlesinger, *Final Report*, p. 48).

Figure IV–6. Stand Up New Indigenous Military Units Mission

F. Mission: Stand Up New Indigenous Military Units

[U23]   Map all relevant details of all current or recently dissolved military forces, their ongoing performance, and the current and future need for such forces

See description under *Neutralize Red Forces*.

[U24]   Map the current state of all detention facilities, their ongoing performance, and the current and future need for them

See description under *Neutralize Red Forces*.

[U25]   Map the current EOD and demining capabilities, their ongoing effectiveness, and the current and future need for them

See description under *Protect Blue Forces*.

[S7]   Organize, train, and equip new indigenous military forces as needed

In some cases, entirely new indigenous military organizations may need standing up. This will entail a greater burden to organize, train, and equip than supporting an existing organization. The timelines for setting up these new organizations may be very long, sometimes measured in years.[169] Depending on the

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[169] An American officer in a unit training Iraqis cited a difference between the "party line" on when Iraqi units would be ready to take over security duties, and the reality of what he saw on the ground. "But from the ground, I can say with certainty they won't be ready before I leave. And I know I'll be back in Iraq, probably in three or four years. And I don't think they'll be ready then." Of the 107 military and special police battalions existing, US and Iraqi commanders only rate 3 capable of operating independently. Shadid and Fainaru, "Building Iraq's Army," p. A01.

scale of the organization, like a new army, the resources needed can be extensive.[170]

In some cases, there may be a large body of willing and trustworthy citizens who can take on a supporting role for security in their local areas.[171] One benefit to forming such groups is they would enlist a large number of citizens directly in achieving security.[172] Fostering such a sense of responsibility and empowerment will substantially pave the path to transition, especially for populations that had the initiative beat out of them by totalitarian regimes. However, this empowerment will need to be balanced with governmental authority.

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[170] A June 2005 *Washington Post* story told of the rifts between an Iraqi trainee unit and its American trainers. One of the chief complaints of the Iraqi troops was the poor living conditions and substandard equipment. Many of the Iraqis lacked proper uniforms, body armor, and weapons. As the result of a mix-up in paperwork, dozens of the Iraqis went without pay for three months. The living conditions of the Iraqis were described as, "Most of the Iraqis sleep in two tents and a shed with a concrete floor and corrugated tin roof that is bereft of walls. Some have cots; others sleep on cardboard or pieces of plywood stacked with tattered and torn blankets. The air conditioners are broken. There is no electricity." Shadid and Fainaru, "Building Iraq's Army," p. A01. An April 2006 article describes the Iraqi Defense Ministry as beginning to distribute Humvees to Iraqi units. A Humvee is not a long-lead item so a three-year gap between the capture of Baghdad and the delivery of this equipment would suggest some problems with timely support to new Iraqi units. Todd Pitman, "Iraqi Soldiers Roll in Their Own Humvees," Associated Press, 10 April 2006, accessed 10 April 2006 at www.washingtonpost.com.

[171] If available, these local citizens bring with them the advantages of persistence, mass, and local knowledge. A well-armed version of Neighborhood Watch can have very short response times because each "unit" only covers a very small area. This obviates the need for expensive transportation assets and allows rapid response. This translates into a persistence not possible with military patrols. And most importantly, these citizens will have an unmatched knowledge of their areas. Even the most capable Special Forces soldier can't compete with a local for knowledge of local patterns, people, and geography. Even slight changes in the flow of daily life can be sensed by a local, as can the arrival of outsiders who appear local to the untrained eye.

[172] A few months after Tet, the South Vietnamese Government passed the General Mobilization Law that greatly expanded the Regional Forces and Popular Forces. This expansion was possible because many Vietnamese were motivated to join units tied closely to their local areas. Sorley, *A Better War*, p. 15.

[S22]   Conduct EOD and demining and assist other Blue doing the same

See description under *Protect Blue Forces*.

[S23]   Organize, train and equip new EOD and demining organizations as needed

See description under *Protect Blue Forces*.

[S31]   Support existing indigenous military forces with supplies, personnel, equipment and funding while managing them

See description under Work with Indigenous Security Organizations.

[S32]   Construct new detention facilities and organizations as needed

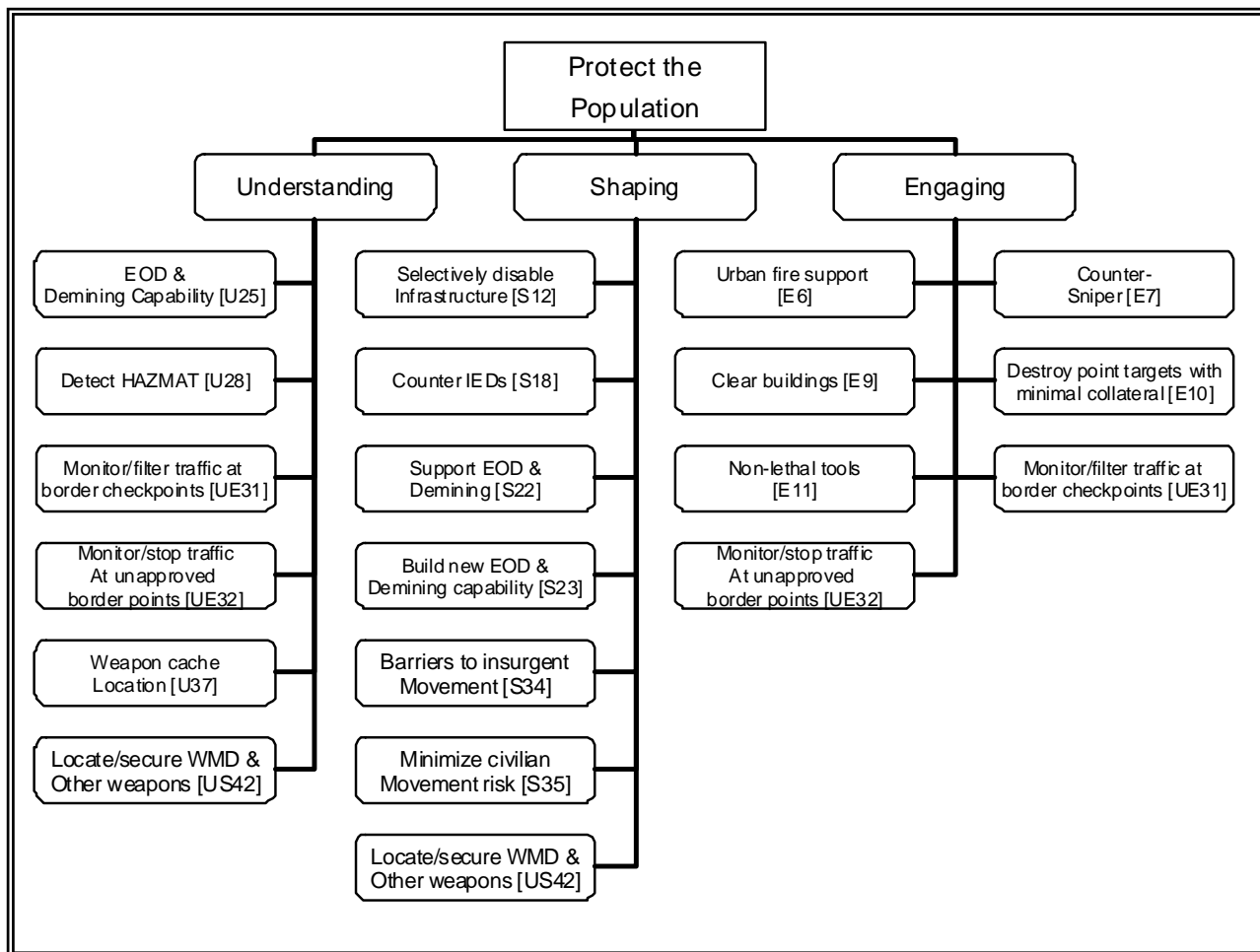*See* description under *Neutralize Red Forces*.

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                         │   Protect the    │
                         │   Population     │
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│  Understanding   │    │     Shaping      │    │     Engaging     │
└──────────────────┘    └──────────────────┘    └──────────────────┘
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| EOD & Demining Capability [U25] | Selectively disable Infrastructure [S12] | Urban fire support [E6] | Counter-Sniper [E7] |

| Detect HAZMAT [U28] | Counter IEDs [S18] | Clear buildings [E9] | Destroy point targets with minimal collateral [E10] |

| Monitor/filter traffic at border checkpoints [UE31] | Support EOD & Demining [S22] | Non-lethal tools [E11] | Monitor/filter traffic at border checkpoints [UE31] |

| Monitor/stop traffic At unapproved border points [UE32] | Build new EOD & Demining capability [S23] | Monitor/stop traffic At unapproved border points [UE32] | |

| Weapon cache Location [U37] | Barriers to insurgent Movement [S34] |

| Locate/secure WMD & Other weapons [US42] | Minimize civilian Movement risk [S35] |

| | Locate/secure WMD & Other weapons [US42] |

Figure IV–7. Protect the Population Mission

IV–92

G. Mission: Protect the Population

[U25] Map the current EOD and demining capabilities, their ongoing effectiveness, and the current and future need for them

See description under *Protect Blue Forces*.

[U28] Detect HAZMAT

See description under *Protect Blue Forces*.

[UE31] Monitor and filter traffic at approved border-crossing locations and other locations with minimal effect on legitimate commerce and travel

Keeping insurgents and their logistical support out of the country enhances security for the population. While military forces (United States and others) have the capability to protect themselves, and base themselves in protected enclaves, that's less true for the population. For insurgents looking to simply terrorize the population any access to the population will suffice, which makes the border an important barrier to that access.

See also description under *Neutralize Red Forces*.

[UE32] Monitor and stop cross-border traffic at unapproved locations

A capability in need of substantial improvement.

This capability is important for the same reasons described under UE31.

See also description under *Neutralize Red Forces*.

[U37] Locate weapon caches

Both insurgents and criminals will have extensive weapon caches scattered throughout the urban and rural battlespace. Being able to detect those would be a significant advance in countering their logistical support. Those weapon caches also present a danger to the population, for example, if children were to come across them or if a fire set them off.

See also description under *Neutralize Red Forces*.

[US42] Locate and secure/destroy any WMD or other weapon stocks not held securely by the host government

See description under *Neutralize Red Forces*.

[S12]   Selectively disable utility, transportation, and communications infrastructure for the short term with minimal damage

See description under *Neutralize Red Forces*.

[S18]   Counter IEDs

A capability in need of substantial improvement.

See description under *Neutralize Red Forces*

[S22]   Conduct EOD and demining and assist other Blue doing the same

See description under *Protect Blue Forces*.

[S23]   Organize, train, and equip new EOD and demining organizations as needed

See description under *Protect Blue Forces*.

[S34]   Create barriers within the country to restrict insurgent movement and logistical support, with minimal disruption to legitimate movement

A capability in need of substantial improvement.

Much like border checkpoints, this type of movement restriction must meet the competing demand of allowing legitimate civilian movement. In fact, the demand is even greater in this case to have little on no effect on civilians.[173] This may require a capability that focuses more in detection-cued action rather than a

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[173]   *See* footnote 133 (Castaneda, "Sand Berm Helps").

passive "dumb" barrier system that requires all traffic to slow or stop. Passive barriers or checkpoints may be useful in a select few cases but the overall system has to be a smarter and less disruptive to civilian movements than an international border crossing would be.

See also description under *Neutralize Red Forces*.

[S35]   Minimize the risk of civilian movement

A capability in need of substantial improvement.

Societies move, and for good reason. Significant impediments to that movement disrupt both economic and social structures; therefore, any insurgent attempts to increase the risk to civilian movement needs countering. If it's too risky to ride the bus to work, employees may decide to miss part of their workday by walking. If an airport is closed because of the threat of insurgent MANPAD attacks, jobs are lost and income from commerce doesn't get generated. If a port is subject to periodic mortar attacks, then global insurance companies will logically charge higher interest rates for any visiting ship. This will, in turn, increase costs for shipping companies that will either stop doing business there or else charge higher shipping rates. Economies are very sensitive to minor disruptions or even the risk of disruptions.

Providing protection for civilian movement is very difficult for two reasons: (1) it means protecting citizens wherever they go and (2) the mere risk to movement has an effect, meaning civilian perceptions must also be addressed. This problem is not made any easier by the vast range of options for disrupting civilian movement available to the insurgents. A subset of this problem is addressed under *Counter IEDs*, but the greater problem is much broader.

See description under *Neutralize Red Forces*

Civilian movement today in Iraq entails considerable risk that has stifled commerce and generated considerable popular ill will toward US forces and the Iraqi government. A portion of that risk for Iraqi civilians comes from US military efforts to protect its own forces while moving.

[E6] **Provide fire support in the urban environment with minimal collateral damage**

See description under *Neutralize Red Forces*.

[E7] **Counter-sniper**

See description under *Neutralize Red Forces*.

[E9] **Clear buildings rapidly, efficiently, and safely for both US forces and civilian inhabitants**

See description under *Neutralize Red Forces*.

[E10] **Destroy point targets with minimal collateral damage**

See description under *Neutralize Red Forces*.

[E11] **Non-lethal tools for separating or keeping separate the insurgents from the civilian population**

A capability in need of substantial improvement.

See also description under *Neutralize Red Forces*.

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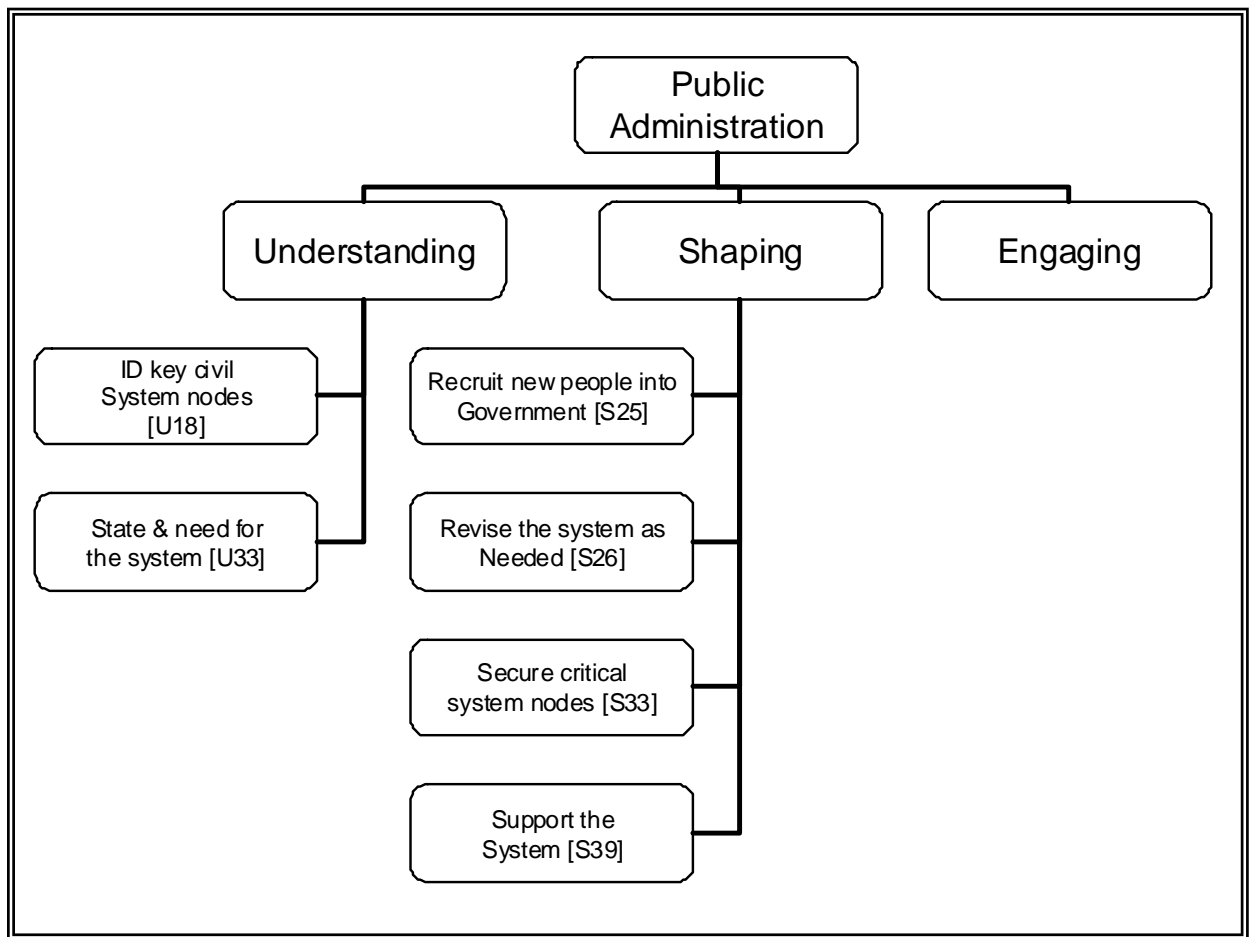
Figure IV–8. Public Administration Mission

H. Mission: Public Administration

[U18] Identify critical civil-system nodes needing extra security

Every civil system has key physical nodes and individuals who are proportionally far more important to its stability and function. For anyone wishing to destabilize or disrupt a society, these nodes are both obvious and fruitful targets. For those battling an insurgency, it is essential to identify these nodes so they can be afforded proper protection.

Node expertise for public administration systems will often exist in academia, both inside and outside the host country in question, or with experts whose vocation involves politics or religion. Reconstruction and stabilization simulation tools could also assist with this task.[174] Because the loss of any one of these nodes could seriously affect societal stability, identifying them *before* Blue personnel arrive is crucial. While this capability doesn't need to reside within DoD, this capability does need to be an input into the DoD planning process.

Key political nodes are more likely to be people rather than pieces of physical infrastructure. These individuals would be leaders in major parties or movements, and/or individuals with symbolic value.[175]

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[174] "In rebuilding infrastructure it is necessary to do mission planning and select which parts of the infrastructure or which facilities need to be addressed first for reconstitution and protection. This is somewhat the inverse of target planning, in which the target is now the element of the critical infrastructure. Simulation tools for this prioritization planning need to be developed or modified from existing planning tools such that targeting assets could be transformed from "find it and destroy it" to "find it and understand it." Eash, "Supporting Technologies," pp. 103–104. In 2003, the head economics advisor to Bremer called for an analysis of all 150 factories owned by the Iraqi Ministry of Industry. The advisor wanted analysis on the viability of these factories to guide decisions about which should be shut down, which should be privatized, and which could be saved as Iraqi government entities. The task was given to a single analyst, with no staff, with no access to financial reports, and few Iraqi plant managers to work with (most fired in the de-Baathification effort). The analyst was given only two things for this task, a list of the factories, and a two-week deadline. Chandrasekaran, *Imperial Life*, pp. 108–109.

[175] Like a former leader or relative of a current or former leader.

[U33] Map the current state of each civil system, its ongoing performance, and the need for it

Every civil system will have a salient set of metrics, on the supply and demand side, and careful analysis will be needed for defining these key metrics.[176] The existence of data, or the ease of collection, is relatively independent from what data matters. If the *raison d'etre* of a city's water system is to deliver clean water to citizens and industry, then the number of water treatment plants is not a measure of output. The supply metrics that really matter are the quantity and quality of water that shows up at a home or factory. At times, it may be difficult to precisely measure the demand for a particular commodity, and therefore the differences between supply and demand, but there are usually indicators that demonstrate a gap exists and its rough magnitude. For example, three-hour lines at most gas stations would strongly suggest that the system built to deliver gasoline to the public is insufficient. The choke point could be any number of links in the supply chain, requiring further analysis, but the end effect is the same—long lines and unhappy customers.

Dysfunctional civil systems can quickly lead to societal instability. If the public administration system is dysfunctional, it affects all departments and levels of the government. Needed is some ability to track the efficacy of this system and give enough time for corrective action, or to prepare for the security consequences.

How well is the public sector managed? Is there a functional government employee system? Are there well-defined ethics rules and are they enforced? How is employee advancement handled? What's the relative importance of "who you know" versus "what you know" in this government? Do the various departments in the national government cooperate and coordinate well? Do the local, provincial, and federal levels of government work effectively together?

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[176] "Yet the U.S. government currently lacks simulation tools that accurately portray the full range of post-conflict reconstruction challenges with which U.S. decision-makers must grapple." Michele Flournoy, "Training and Education for Post-Conflict Reconstruction," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 134.

[S25] Recruit influential individuals currently out of the government for government service

Are there any influential individuals outside of government who should be recruited? These could include individuals with considerable influence in society, who would enhance the governmental decision-making process and give some groups greater input into government.

[S26] Expand/Improve each civil system as needed

Over time, the system may require expansion, contraction, or some other change. Most importantly for transition, there may be a need to train the local workers. If the indigenous expertise doesn't already exist, it must be created. This effort should *not* be considered as belonging in the final phase of transition but rather as being integral to the process from the beginning.

[S33] Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Public administration nodes are more likely to be people than places or things. Individuals who can make the complex maze of bureaucracy function well are rare and difficult to replace. A key component of such a talent is the personal relationships between the various senior bureaucrats. These relationships can take decades to form so the assassination of a key leader can seriously disrupt the overall function of government. Key leaders are also important for the ethnic, social, political, religious, and economic gaps they bridge. The good leaders appeal to both the masses and the various elites in a country. This sort of appeal is rare and takes a long time to develop.

Public administration has some critical physical nodes: for example, important meeting facilities for government where large numbers of important people can be targeted. The legislature or the national leader's residence is an example.[177]

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[177] In October 2001, the legislature for Indian-controlled Kashmir was attacked, as was India's national parliament two months later. "Unparliamentarily Conduct." *Economist*, 13 December 2001.

A related "target set" would be the foreign diplomatic corps. If a particular area becomes too dangerous for diplomats, they could be withdrawn, having a negative effect on the host-nation's ability to interact with other nations.[178]

Insurgents in Iraq have had great success in striking critical nodes in many different civil systems and attacking key individuals important for the functioning of Iraq society.

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

The public administration system will demand both large numbers of personnel and considerable expertise. The needed expertise will entail both general public administration knowledge and knowledge of the particulars of the HNG.

In spite of the considerable expense and effort so far, the civil systems of Iraq have not been sufficiently reconstructed to act as a stabilizing factor.

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[178] In July 2005, three Arab envoys were killed by insurgents. Later that same month, the US Ambassador announced that Coalition forces were looking into the problem of providing security for foreign diplomats. At the time, rough estimates put the number of diplomats in Iraq at 500. Tini Tran, "U.S. Weighs Protecting Foreign Diplomats, " Associated Press, 28 July 2005, accessed 28 July 2005 at www.washingtonpost.com. On 10 April 2003, a senior Shiite cleric, Ayatollah Abdul-Majid al-Khoei, was murdered in Najaf. George Packer, *The Assassin's Gate: America in Iraq*, (New York: Farrar, Straus and Giroux, 2005), pp. 312–313.

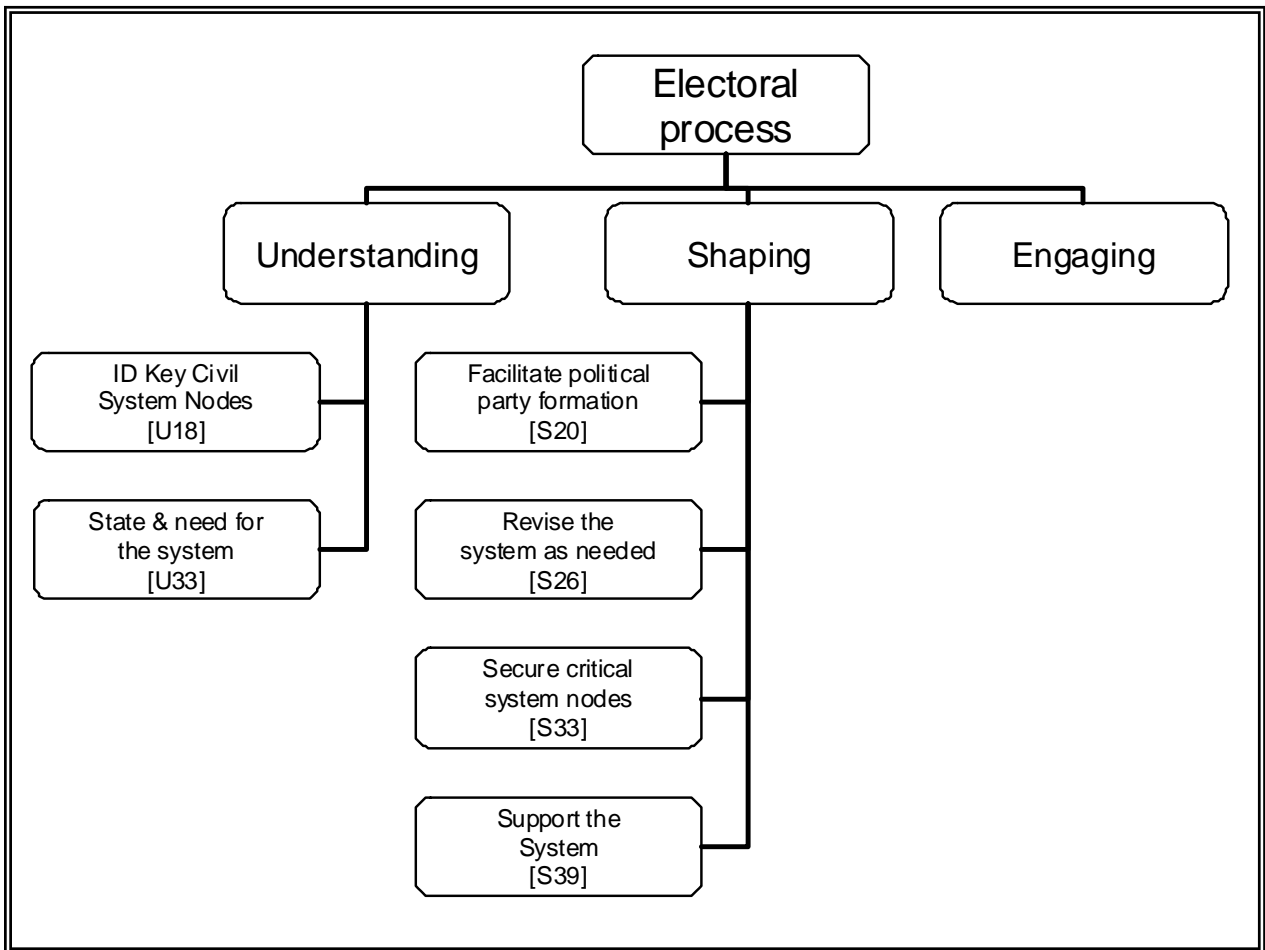This page is intentionally blank.

Figure IV–9. Electoral Process Mission

I. Mission: Electoral Process

[U18] Identify critical civil-system nodes needing extra security

See description under *Public Administration.*

[U33] Map the current state of each civil system, its ongoing performance, and the need for it

If the population does not respect the electoral system, the people may view the door to peaceful change as closed. In such a case, the recruiting efforts of the insurgents may receive a major boost.[179] If the public sees this system as not reflective of their opinion, either corrective actions would be needed or preparations made to deal with the consequences.

How often have elections been held in the past and how accurately has the electoral process reflected the will of the people? Is the electoral process respected internationally and domestically? How efficient and speedy is the process? Is the electoral system open or restrictive to candidates? How independent is the electoral process from the political views of the government? Is the electoral system accessible to the population? Does the electoral system have the information it needs about the people to conduct elections with minimal irregularities?

See also description under *Public Administration.*

[S20] Facilitate political party formation

In some IW scenarios, it will be desirable for new political parties to emerge. This could be to keep a dominate party honest with political competition and/or to give groups outside the normal political process a voice in peaceful change.

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[179] Massive levels of French-instigated fraud in the Algerian elections of 1948 and 1951 "marked and important stage in the crystallizing of Muslim rage." This fraud was the impetus for the merging of all the Algerian nationalist parties into one united front. Horne, *A Savage War of Peace*, pp. 70–76.

[S26] Expand/Improve each civil system as needed

The planning for this system should assume a lengthy development process as democratic institutions take many years to put down durable roots.[180]

See also description under *Public Administration.*

[S33] Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

For the electoral system, the critical nodes will often be time and geographic specific. A particular street corner may normally not be of importance, but it is for the forty-eight hours it serves as a polling station. Other nodes could be central election headquarters or the electronic systems used to track election resources, voter registration rolls, and even votes.

See also description under *Public Administration.*

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

The country in question may not have experience in running elections or may need additional personnel or other resources. Or that past elections were conducted but not in a manner that generated international legitimacy. These efforts may include referenda, including a constitutional referendum.

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[180] For an article describing declining budgets for democracy promotion in Iraq, see Peter Baker, "Democracy in Iraq not a Priority in U.S. Budget," *Washington Post*, 5 April 2006, p. A01.
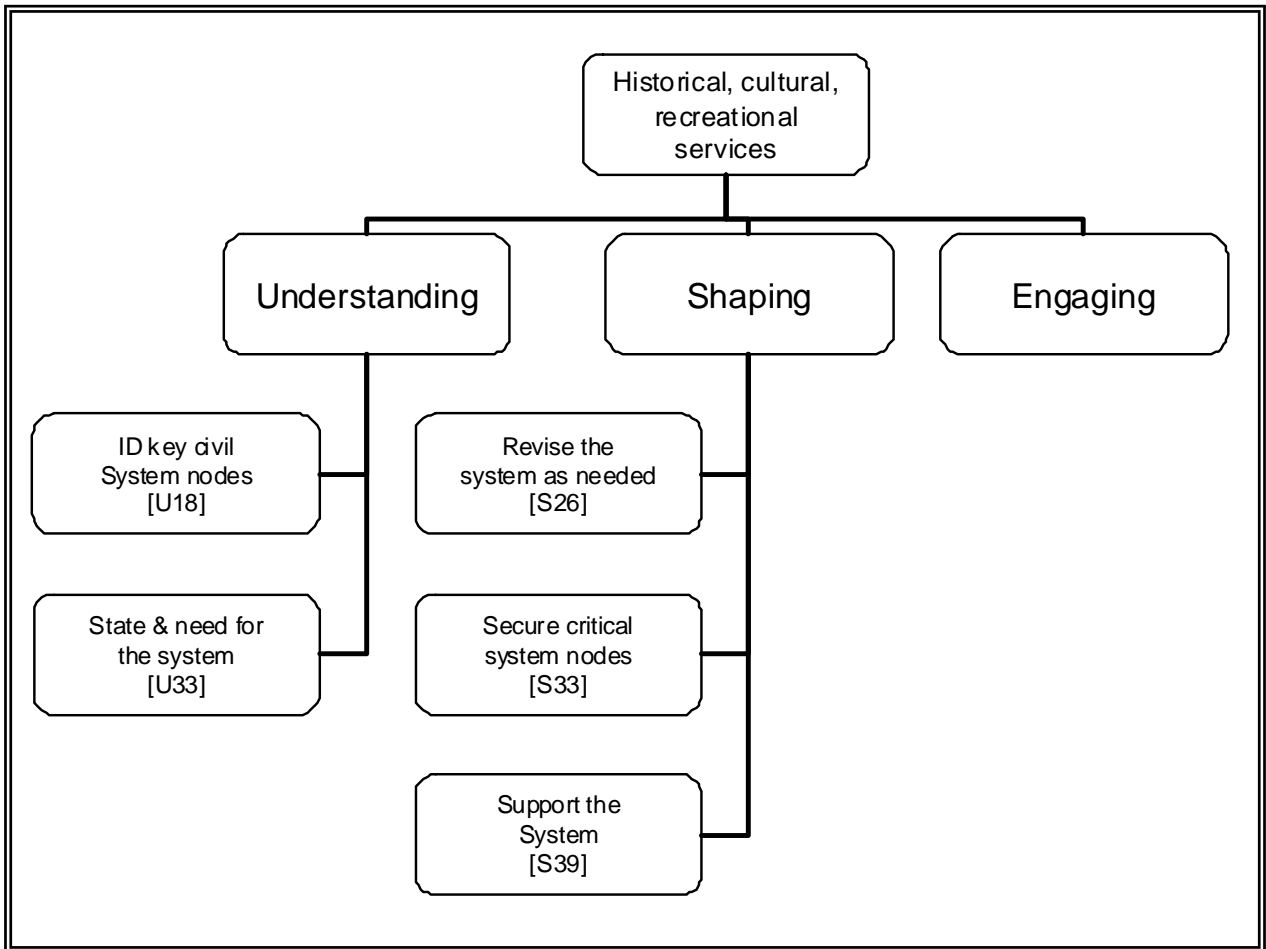
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Figure IV–10. Historical, Cultural, Recreational Services Mission

J. Mission: Historical, Cultural, Recreational Services

[U18]   Identify critical civil-system nodes needing extra security

Key religious nodes could be either holy sites, houses of worship, or religious leaders.[181] In some societies, this type of node may be the single most important. For example, it could be argued that the assassination of Grand Ayatollah Sistani would destabilize present-day Iraq more than the death of any other person in that country—or perhaps the world.

Key cultural and social nodes could be places or people of historical significance or considered symbolic of a nation's culture.[182]

See also description under *Public Administration*.

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

Are sufficient safeguards in place to protect the nation's historical and cultural treasures? There is always a market for antiquities, so absent some serious efforts to protect those items, they may be stolen and sold on the international market. Given the symbolic role played by these items in the identity of a nation or people, their loss could cause significant unrest. A people could view it as disrespectful to their culture if an arriving military force appeared to allow such thefts to occur. In the case of locations or monuments, things not normally vulnerable to theft, the issue instead is general maintenance and appropriate respect. If a particular monument is of great historical significance, then it should be well maintained: this shows respect for a culture and encourages a flow of tourism

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[181] The bombing of the Shiite gold-domed al Askariya shrine in February 2006 in Iraq sparked extensive sectarian violence. According to officials at Baghdad's main morgue, the death toll was more than 1,300 over the first few days since the bombing. Ellen Knickmeyer and Bassam Sebti, "Toll in Iraq's Deadly Surge: 1,300," *Washington Post*, 28 February 2006, p. A01.

[182] This could include an ancient structure, a national symbol (e.g., the Eiffel Tower, the Statue of Liberty), a prominent entertainer, or a sports star.

revenues into a region. Is the public sufficiently well served by recreational services? Recreation is useful for promoting overall stability in a society by creating an outlet for the people's time and energy. The more time there is to do "nothing," the more likely an individual is to be a destabilizing influence, especially the unemployed,

See also description under *Public Administration.*

[S26] Expand/Improve each civil system as needed

See description under *Public Administration.*

[S33] Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Key culture nodes often relate to religion, and these can be either places or people.[183] Key religious sites should be easy to identify—they have usually been around for centuries. Even if they do no real damage, attacks on these sites can spark serious sectarian violence.[184] Insurgent attacks on key religious leaders can

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[183] An important element in the success of the Sandinista insurgency in Nicaragua in the 1970s was the support it received from elements of the clergy. The Sandinistas realized that a significant number of the clergy in the country were dismayed at the corruption in and abuses of the Somoza regime, and these same clergy were also widely respected in rural society. This made them natural allies that the Sandinistas exploited to great effect. Hammes, *The Sling and the Stone,* pp. 84–85.

[184] In July 2005, a six-man team thought to be Islamic radicals attacked a disputed temple site in India. This temple site had been a focal point of Hindu-Muslim conflict in India for many years. All six attackers died in the attack but they did gain entrance into the temple grounds. In response, the opposition BJP Party called for nationwide protests to criticize the failure of the government to protect properly the site. In 1992, a crowd of Hindu extremists had torn down a Muslim temple on that sight, and that sparked sectarian riots that left 2,000 people dead. John Lancaster, "Attackers Storm Temple Complex in India," *Washington Post*, 6 July 2005, p. A11. On November 20, 1979, a large group (about 200) of radical Muslims assaulted the Grand Mosque in Mecca. Rumors quickly spread across the Middle East that Israel and the United States were behind the attack. In reaction, a huge mob estimated at 15,000 gathered outside the US embassy in Islamabad, Pakistan. Evidence appeared that some organizing for such an event had occurred prior to this event, but the incendiary effects of the Mecca

(Continued)

also be very destabilizing. A single influential voice of moderation can keep millions of restive people in check. Insurgents wishing to destabilize a society will see targeting these key leaders as a shortcut to that instability.

Providing security at a fixed site is challenging, as it has a lot to do with perception. Sometimes an attack doesn't have to do any real physical damage for the public to see its culture disrespected by insufficient security. The protection of cultural sites is the case where the more visible the security efforts, the better. Protecting key cultural leaders is difficult as they move and mingle in the population; often, they may not want to be perceived as having a security entourage.

See also description under *Public Administration*.

[S39]   Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

Aside from the personnel, infrastructure and resources needed, considerable expertise to run such a system is also needed, along with an understanding of the *when*, *where*, and *what* for recreational facilities. A thorough understanding is needed of what antiquities and monuments exist, and where, and how they can best be preserved. If a particular area takes its sports very seriously, what would be the effects of US forces occupying the soccer stadium?

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attack were still evident. The mob then stormed and sacked the embassy, with the staff in the embassy only surviving by holding up in the embassy vault for more than four hours. All six buildings in the embassy compound were burned down, buildings that originally had cost $20 million to construct. Coll, *Ghost Wars*, pp. 27–37.
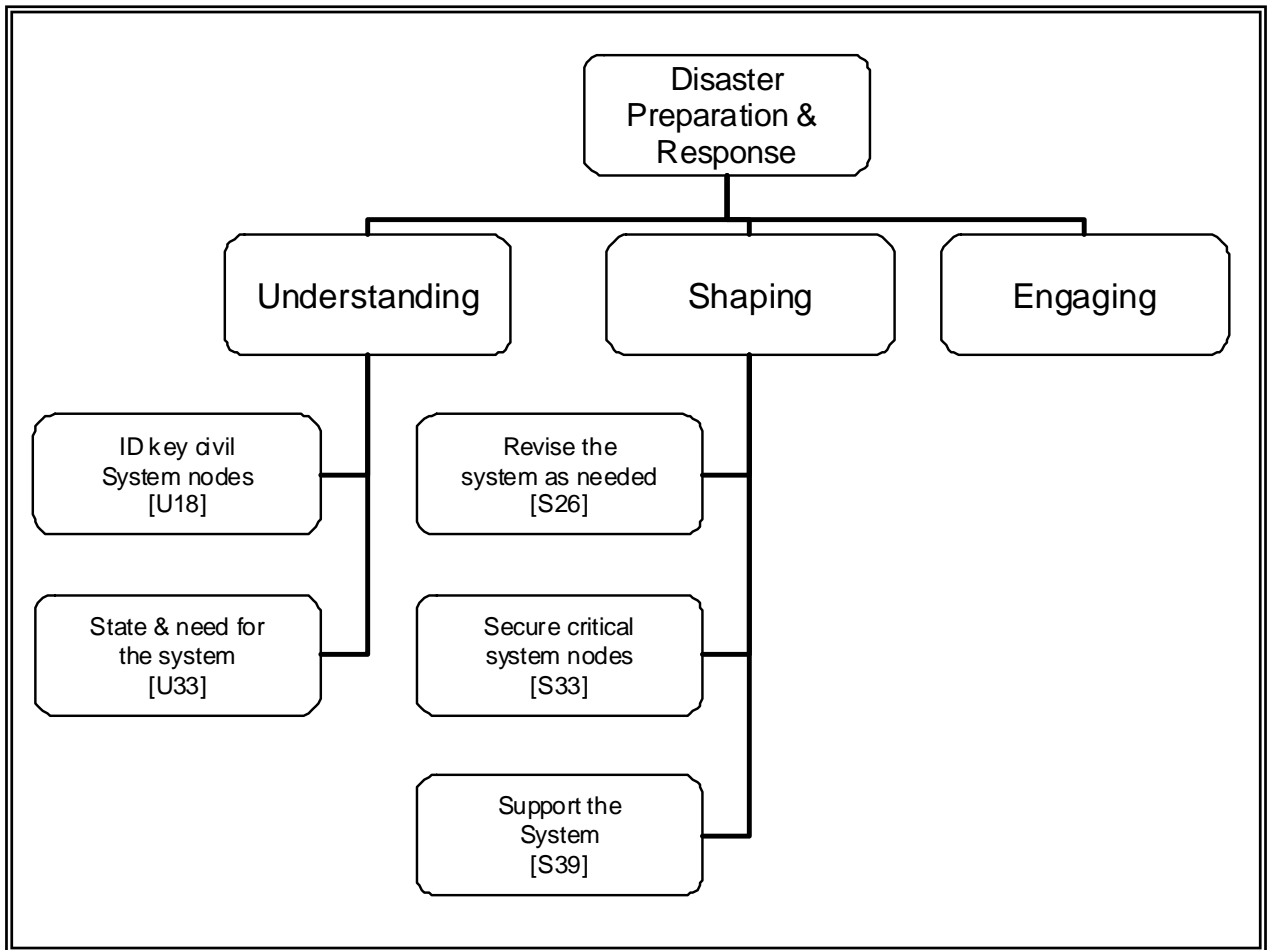
Figure IV–11. Disaster Preparation and Response Mission

K. Mission: Disaster Preparation and Response

[U18]   Identify critical civil-system nodes needing extra security

Key economic nodes are nodes whose destruction would be time-consuming or expensive to replace, or would cause system-wide disruptions; and/or would directly affect a major-revenue source. A key individual for the economic system would be someone who is both in a position of considerable authority *and* who would not be easily replaced.[185]

An excellent source of information on key physical infrastructure nodes is the personnel who run these systems every day. For example, no one knows the critical nodes of New York City's water system better than those who manage these nodes.

See also description under *Public Administration*.

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

What is the range of possible disaster scenarios for the area in question? Do organizations exist that prepare for those disasters and manage them when they actually occur? Are they capable of doing their jobs? What scenarios would exceed their capabilities? How will threats evolve over time? The analysis would require a wide range of expertise to include weather, geology, oceanography[186], agriculture, disease propagation, industrial safety, [187] demographics, economics, and civil engineering. [188]

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[185]   Albert Speer and Alexander Hamilton are examples that come to mind.

[186]   In December 2004, the Indian Ocean tsunami killed several hundred thousand people from more than a dozen countries, and displaced approximately eight times that number. Karl F. Inderfurth, David Fabrycky, and Stephen P. Cohen, The Tsunami Report Card, *Foreign Policy Magazine*, December 2005.

[187]   *See* footnote 158 (EPA, Toxics Release Inventory (TRI) Program).

[188]   In December 1972, a major earthquake struck Managua, Nicaragua's capital. The Somoza government's grossly inept handling of that disaster bred great discontent in the population,

(Continued)

See also description under *Public Administration*.

[S26]   Expand/Improve each civil system as needed

If analysis shows the current civil system to be woefully inadequate for the viable threats, then the system needs expansion or improvement. This expansion could involve rewriting disaster plans or the expansion of resources supporting the current plans.

See also description under *Public Administration*.

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

The nodes for this system are quite varied. A key bridge needed for hurricane evacuation could be a critical node. Another could be a warehouse of emergency supplies or a large shelter facility.

See also description under *Public Administration*.

[S39]   Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

This type of organization may need help with the following:

- Assessing the various threat scenarios.

- Planning the overall coordination of organizations, both before and during an emergency.

- Stockpiling emergency supplies or arranging for access to stockpiles in the event of a disaster .

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which the insurgent Sandinista movement fully exploited. Hammes, *The Sling and the Stone*, pp. 80–81.

- Planning to provide evacuation and temporary shelter and support for large numbers of people.

- Conducting a public relations campaign to encourage basic preparations by the population.

- Constructing an early warning system and inform the population about it and how to react. Practice its use.

Help may come in the form of (1) advisors with expertise, supplies, funding, connections to organizations that can offer assistance, and (2) early warning on potential disasters.
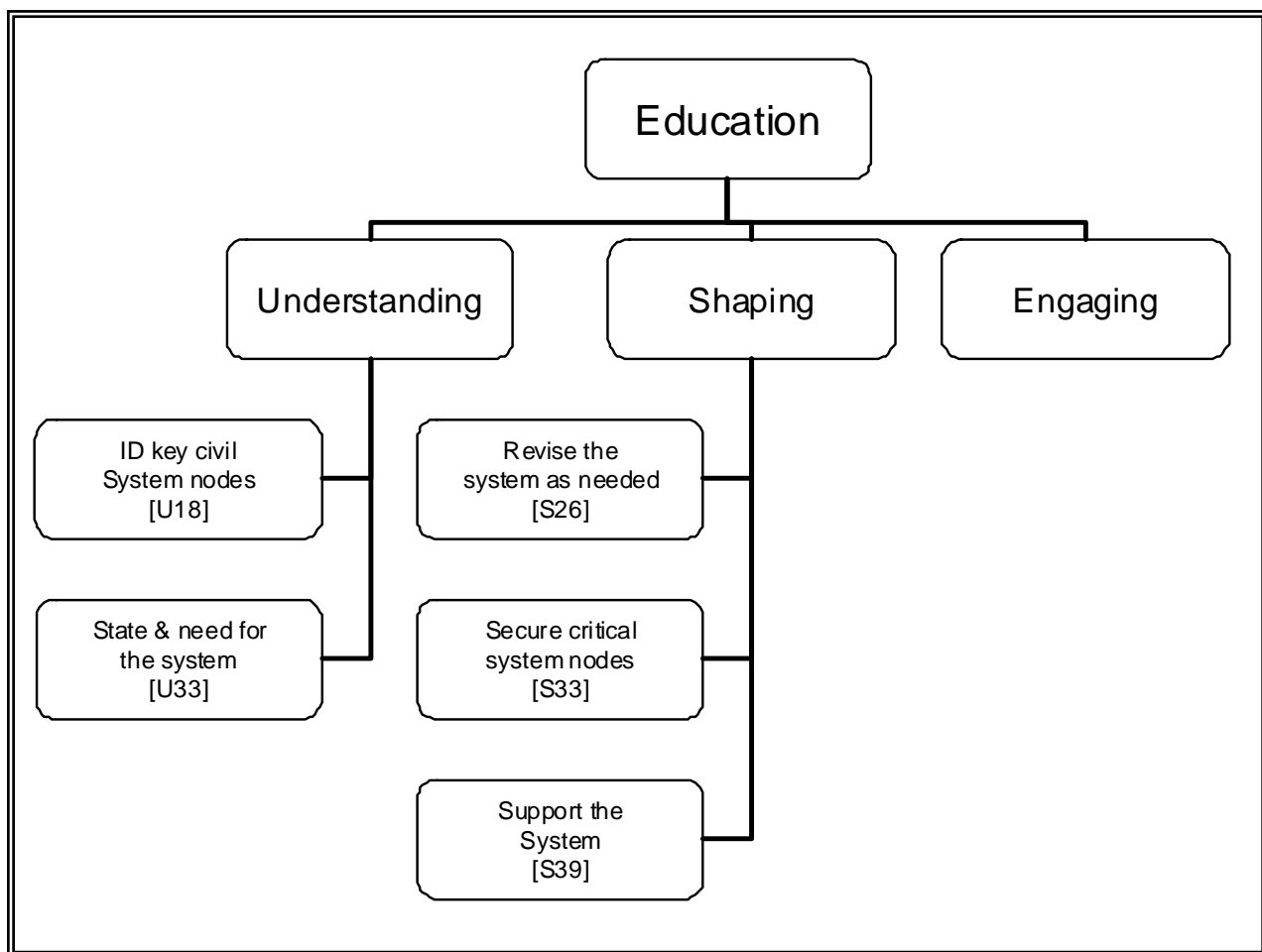
Figure IV-12.   Public, Private, and Adult Education Mission

L. Mission: Public, Private, and Adult Education

[U18]   Identify critical civil-system nodes needing extra security

Key nodes in the education system will be both people and infrastructure. The high volume of students will require large amounts of meeting space and dedicated real estate. The extensive training required to be an educator, especially at the higher levels, means these individuals won't be easy to replace.[189]

The security needs of education nodes go beyond protection from destruction. The education system's role in passing on knowledge and values to the youth could make it a target of insurgent takeover or influence. An education node taken over by the insurgents and used to disseminate their ideology would be as damaging or even more so than the destruction of the node.

See also description under *Public Administration*.

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

If the education system is failing significant numbers of people, and closing a major path to legitimate betterment, then these people may take one of four courses of action. One would be to simply acquiesce, accept one's grim reality and settle for less. A second course of action would be to work diligently within the system for change. The third course of action would involve illegitimate courses of action for improving one's station in life (i.e., a life of crime). The fourth course of action is the most dangerous for society, seeking radical and violent change to the system. An individual may decide that the dysfunctional education system is not an accident but rather part of a greater scheme to keep certain

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[189]   On 7 June 2007 an Iraqi Education spokesman complained that the government wasn't protecting those who worked in education. He stated 211 university professors and 104 officials from the Education Minstry had been assassinated in Iraq since the war started in March 2003. An additional 91 professors had been kidnapped and not released. John Ward Anderson, "Suicide Attacks, Bombings Kill Dozens in Iraq," *Washington Post*, 8 June 2007, p. A16.

classes of people from advancing within society. This may then lead the person to conclude that only a violent overthrow of the current state can offer a better future.

Metrics for evaluating the school system could include standardized test scores; success of graduates in the job market; the percentage of foreign labor hired by local businesses; the size of the waiting list to become students; the number of new businesses opening or coming into the country from abroad; the wage levels of graduates; and the competitiveness of graduates in educational institutions outside the country. However, the most important metric is the level of satisfaction within the population. They are the true customers—and if they are unhappy, the system isn't working.

See also description under *Public Administration*.

[S26]   Expand/Improve each civil system as needed

As the population grows and moves, so will the need for the education system to expand and improve. The curriculum will also need to adapt to changes in the skill sets demanded by the economy. An expanding urban area will require more schools, while a shrinking one less. A new industry will require new skills to be taught while a declining industry will call for less emphasis on its skills.

See also description under *Public Administration*.

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Critical nodes in the education system are more likely to be people. Physical structures are not so specialized or so few in number as to be vulnerable to isolated knockout blows or prohibitively expensive to replace. *A more likely target for an insurgency would be individual teachers and senior administrative personnel.* A string of teacher assassinations could make it difficult to recruit new teachers, or divert substantial resources away from actual education to security. The curriculum itself could be placed under pressure if educators were threatened and

killed. Insurgents with a religious or ethnic ideology could target anyone who teaches about religious tolerance or ethnic diversity.

Providing this security will be difficult for two reasons: (1) protecting the large number of educators in the system will stretch resources thin and (2) providing security coverage while educators are only at work is insufficient. If security is necessary, it should also be supplied where the educators live. Security only at the school itself can protect the students (while there) and the education system's physical infrastructure, but it would do little to protect the teachers.[190]

See also description under *Public Administration*.

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

If the current education system is insufficient, then assistance could come in the form of advisors who had the needed expertise and organizational improvements.

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[190] "Nine men wearing Iraqi police uniforms burst into an elementary school in a village south of the capital Monday, ordered the five male teachers and the school bus driver into a room and killed them in a spray of bullets." Jackie Spinner and Saad Sarhan, "Gunmen Kill 5 Teachers, Bus Driver at Iraqi School," *Washington Post*, 27 September 2005, p. A19.
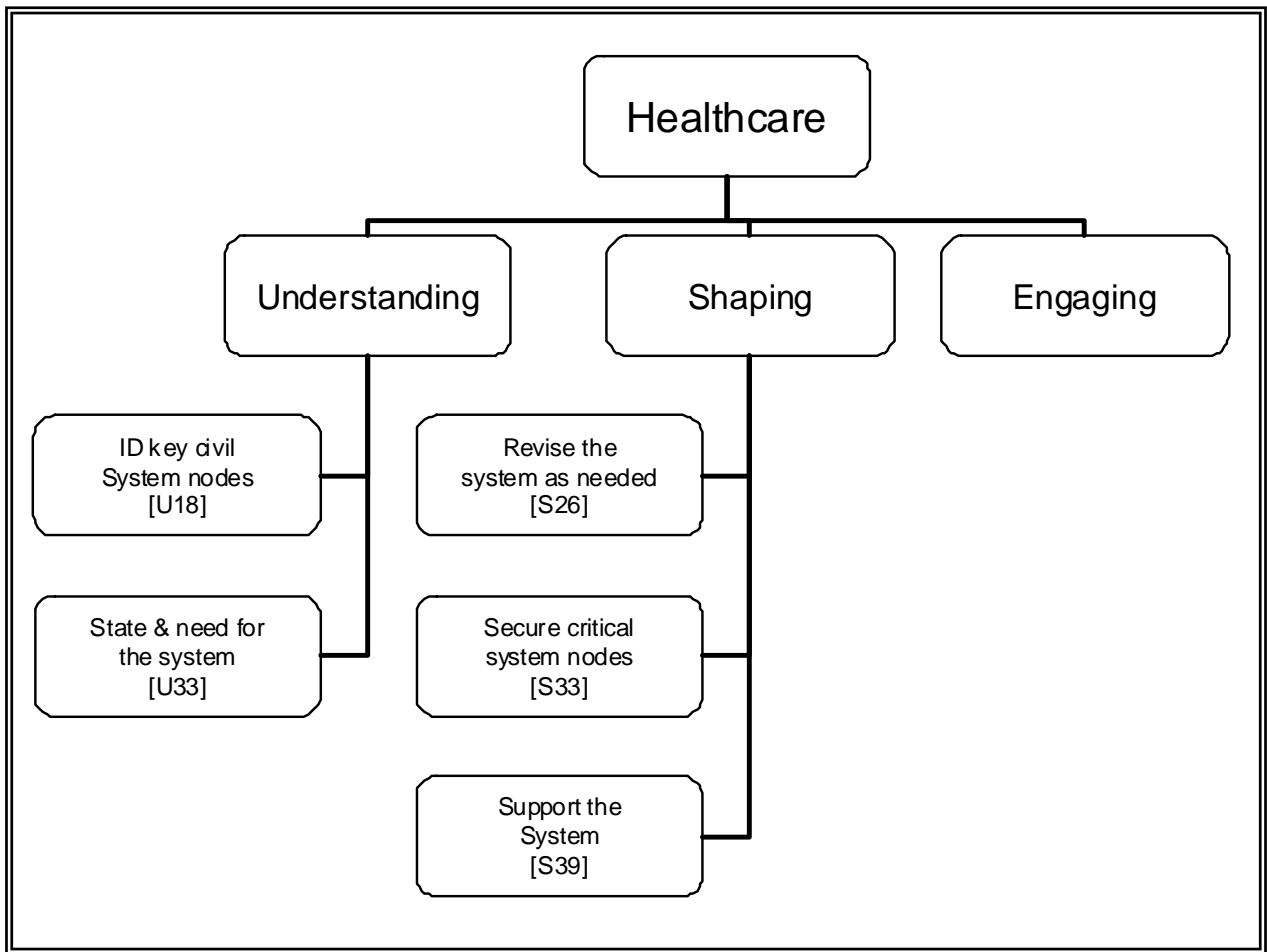
Figure IV–13.   Public and Private Healthcare Mission

M. Mission: Public and Private Healthcare

[U18] Identify critical civil-system nodes needing extra security

See also description under *Public Administration.*

[U33] Map the current state of each civil system, its ongoing performance, and the need for it

The following questions address the aggregate healthcare system, both public and private. Does the public have ready access, defined by both proximity and cost, to healthcare they deem sufficient? What is the quantity and quality of healthcare facilities? Are there enough qualified healthcare staff? Do the healthcare facilities have appropriate stocks of medicine and medical equipment? What are the specific healthcare needs of the population in each area? What conditions are causing the most problems with the population? Are there significant unexploited opportunities for preventative healthcare? Why?

See also description under *Public Administration.*

[S26] Expand/Improve each civil system as needed

Changing health threats, population movements, and changes in population size can all drive changes in healthcare needs.

See also description under *Public Administration.*

[S33] Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

The healthcare system is characterized by large specialized facilities and highly trained individuals, both of which constitute critical nodes. While a significant proportion of the healthcare system can be resident in smaller clinics, economies of scale and the scarcity of certain types of specialized equipment will result in some larger hospitals. Each large hospital represents a significant percentage of the healthcare system in any given area. Attacks don't have to destroy

these targets but merely raise the risk of their use. If such a facility were to close, it could cut off the population in that area to proximate healthcare. Given the need for prompt care for many conditions, having to travel long distances to the nearest open hospital definitely degrades the performance of the overall system.

Healthcare providers constitute another critical node. The long duration of training required, along with the substantial intellectual demands, means that doctors will always be relatively few in number. Their essential role and scarcity make them natural targets for an insurgency looking to disrupt the healthcare system.[191] As with any human target, they don't have to be killed, just neutralized. Neutralization can come in the form of threats or attacks that drive doctors to leave the country.

See also description under *Public Administration*.

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

If the current healthcare system is insufficient, the shortfalls may be correctable by either augmenting qualified personnel, equipment, supplies, and/or facilities, or else relocating existing facilities to where they are most needed.[192] In some cases, where no healthcare system exists, the need is to construct one. This would obviously take longer and require setting priorities for health threats and in geographic areas most in need.

The scale and essential nature of this system rule out the ad hoc approach. Before the first US troops arrive, the need is some awareness of the existing

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[191] From a 31 May 2004 *Los Angeles Times* article: "Health officials and doctors estimate that as many as 100 surgeons, specialists and general physicians have been abducted from their homes and clinics since the beginning of April. Some were beaten and tortured. Most were released after the payment of between $20,000 and $200,000 in ransom." Edmund Sanders, "Kidnappings Bleed Iraq of Doctors," *Los Angeles Times*, 31 May 2004.

[192] "Ensure DoD medical personnel and capabilities are prepared to meet military and civilian health requirements in stability operations." *Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations*, DODD No. 3000.05, 28 November 2005, p. 6.

healthcare system and plans to correct the deficiencies. This is not to say US forces will correct these problems themselves, but that coordination would be worked out ahead of time with those who will. The population will always need some level of support from the healthcare system, and US forces will never have the capability to fulfill that need for any significant portion of the population. These two factors demand a functional healthcare system in the host country. Outside entities can help in certain key areas, but a major effort will be required of the indigenous actors. If detailed plans for fixing the healthcare system are not well constructed *and* ready to go on day one, the cost will be substantial. While standing on the turret of the $4.5 million tank, it's not convincing to tell villagers it was "impossible" to repair their $100,000 health clinic in the six months US forces have been in the area. The metric in healthcare is lives saved and lost so it's easy to see why substandard healthcare can spawn much public angst.[193]

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[193] In Iraq, a two-year, roughly $200 million effort to build 142 primary care clinics faltered badly. As of April 2006, the US Army Corps of Engineers was estimating the original contractor was going to leave more than 120 of those clinics only two-thirds complete. Emergency funds were going to be sought to complete the clinics. Ellen Knickmeyer, "U.S. Plan to Build Iraq Clinics Falters," *Washington Post*, 3 April 2006, p. A01.
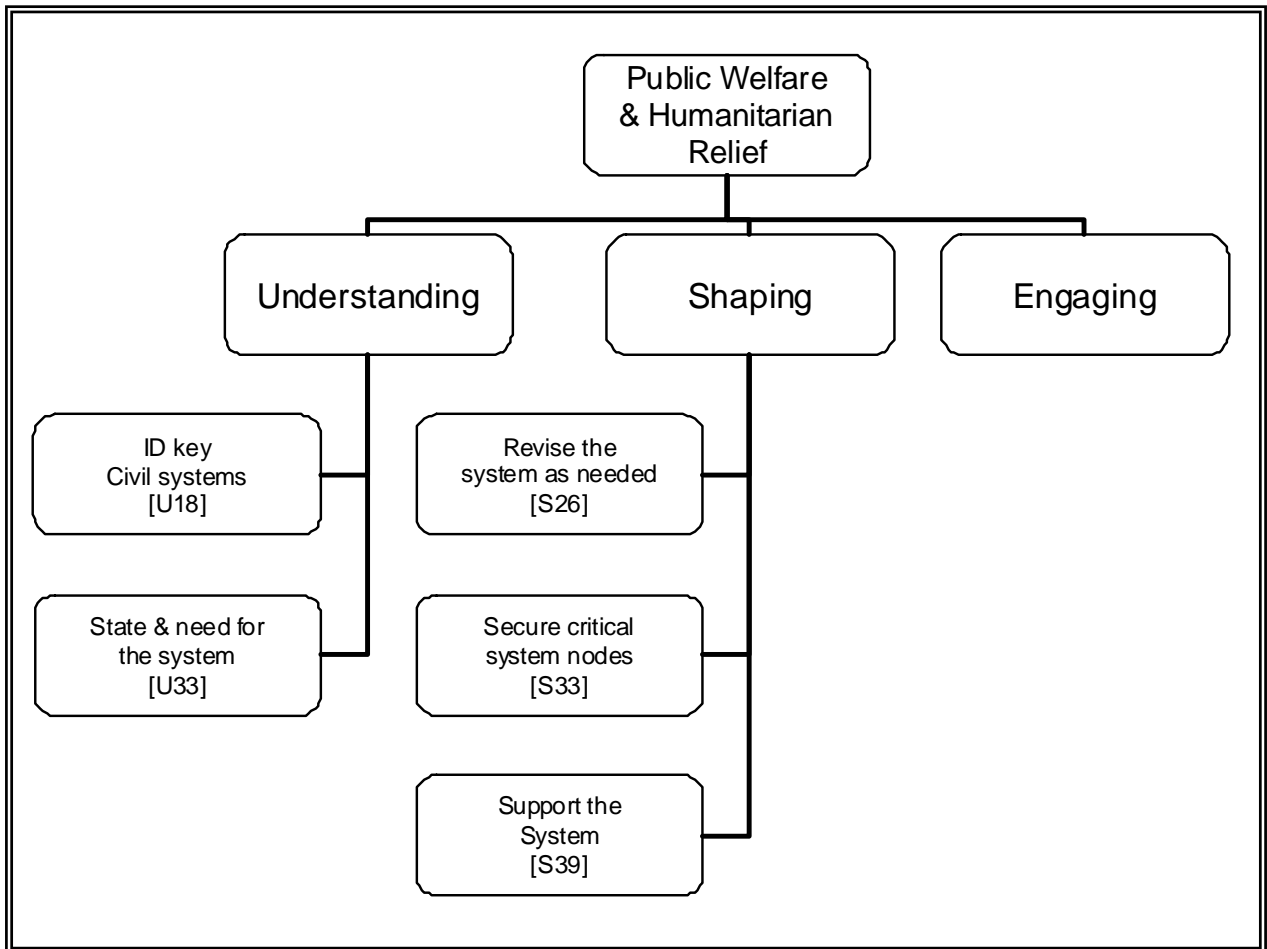
Figure IV–14. Public Welfare and Humanitarian Relief Mission

N. Mission: Public Welfare and Humanitarian Relief

[U18] Identify critical civil-system nodes needing extra security

See description under *Public Administration*.

[U33] Map the current state of each civil system, its ongoing performance, and the need for it

Some portion of the population will always be on hard times. This proportion of the population can be quite large at times, especially after a natural disaster, economic collapse, or disruptions of an insurgency. This pool of people in need cannot be ignored—or at least without cost.[194] If a substantial portion of the population feels neglected and ignored by the government, they won't have to look far for someone who will care. The basic functions of a public welfare and relief system to evaluate are the size and location of the needy population, the particular needs of that population, the system's ability to identify the needy, and the system's ability to access and fulfill the needs of this population. If the system is insufficient, why? Does it lack for trained personnel, supplies, infrastructure, or funding?

See also description under *Public Administration*.

[S26] Expand/Improve each civil system as needed

The need for this system can change with population growth, population movements, economic problems, and the disruptions caused by the insurgency.

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[194] In the fall of 2005, the spokesman for the Iraqi Housing and Reconstruction Ministry described homelessness as a "huge, huge, problem." He stated Iraq was short 3.38 million housing units, which would cost $120 billion to construct, money that didn't exist. Commenting on a proposal to forcibly clear squatters from military buildings and compounds, the Iraqi Defense Minister stated that some of the squatter communities had become home to terrorists and car-bomb makers. Bassam Sebti, "Desperate Squatters a 'Huge Problem,' " *Washington Post*, 25 October 2005, p. A14.

See also description under *Public Administration*.

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Strained relations between the government and certain needy groups may make the delivery of aid problematic. In some cases, these difficulties could be eased by certain leaders trusted by both groups. If these leaders were in short supply, they would constitute critical nodes. The insurgents could then realize that the assassinations of a few key people could spark a rift between the needy group and the HNG. The needy group could then be "captured" by the insurgents when they step in with aid of their own.

See also description under *Public Administration*.

[S39]   Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

Assisting this system should match well with the capabilities of the NGO community. Any DoD role would most likely fall into one or more of these three categories. First, DoD could act as a short-term gap filler for a sudden relief need until the host government or an NGO can step in. These other actors may need a few weeks to organize and begin delivering supplies to a needy population; DoD's rapid response capabilities could fill that gap. Second, a particular relief scenario may involve a serious security threat. Supplies might not be deliverable without security provided by DoD. The need for security might be only for the short term, or it could be a long-standing requirement. If the requirement is enduring, the security role may or may not pass on to someone other than DoD. Third, DoD may be called on to provide transportation. DoD's heavy airlift capability, especially into austere airfields, may be called upon to deliver emergency supplies. In this scenario, the supplies and most of the ground personnel distributing those supplies would come from other organizations. This would, in turn, require careful coordination with these other organizations and DoD.
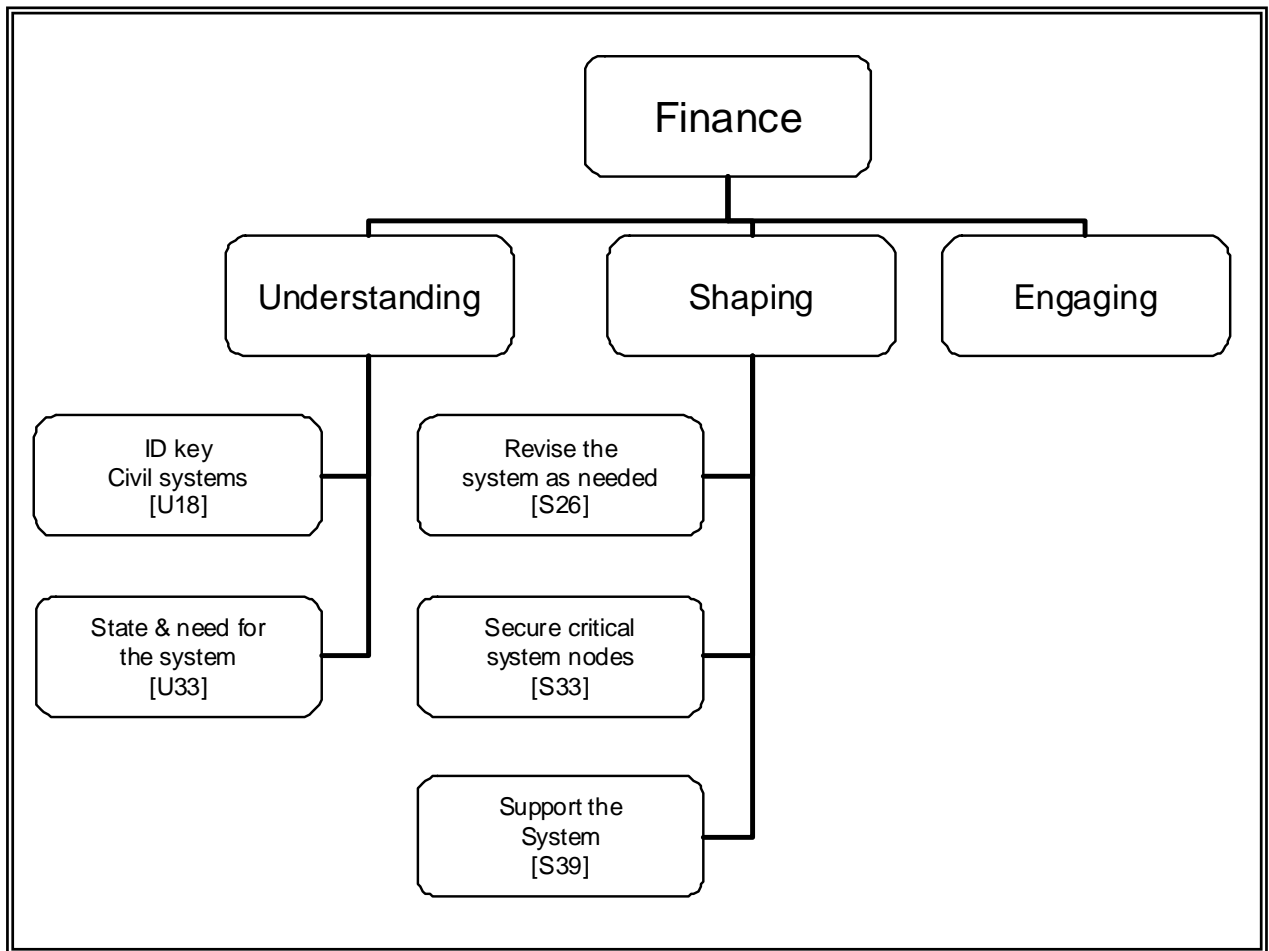
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Figure IV-15.   Public and Private Finance Mission

O. Mission: Public and Private Finance

[U18]   Identify critical civil-system nodes needing extra security

See description under *Public Administration*.

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

Disruptions in the finance system can lead to collapsed governments and civil unrest.[195] Some ability is needed to track the efficacy of this system and either give it time for corrective action or else prepare for the security consequences.

What public finance institutions exist and how well do they function? What government institutions are charged with monitoring the health and behavior of private financial institutions, and how well are those government institutions doing their job? Does the public have confidence in the public and private finance system? Are the needs of the business sector met by the current public and private finance sectors? Does the business sector, domestically and internationally, have confidence in the public and private financial institutions? Are condi-

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[195]   In the mid-1990s, a wave of under-regulated pyramid schemes flourished in Albania as it struggled to change from a command to market economy. Deficiencies in the private financial sector led to the expansion of an informal credit market, both of which were tolerated and unregulated by the Albanian government. Vast sums of capital flowed into these unsound pyramid schemes, just two of which attracted two million investors out of a national population of 3.5 million. Fantastic rates of return, with several promising a 30 percent return per month, were a powerful draw to a population new to capitalism. Some Albanians sold their houses to invest in the schemes. When the bubble burst in late 1996, the economic damage and civil unrest were severe. The government was forced to resign, approximately 2,000 people died in the riots and unrest, some police and military units deserted, roughly one million weapons were looted from government armories, foreign nationals were evacuated, and a mass emigration of Albanians occurred. Christopher Jarvis, "The Rise and Fall of Albania's Pyramid Schemes," *Finance and Development*, Vol. 37, No. 1 (March 2000), accessed 26 July 2005 at http://www.imf.org/external/pubs/ft/fandd/2000/03/jarvis.htm.

tions favorable for the growth of private financial institutions? Is the currency sound?[196]

See also description under *Public Administration*.

[S26] Expand/Improve each civil system as needed

As it evolves and grows, the economy's need for private and public financial institutions will change as well. The same goes for the HNG as it changes over time.

See also description under *Public Administration*.

[S33] Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Key public finance nodes could be central banks or other storage facilities for cash or other valuable goods, and currency production facilities. Financial databases, both public and private, could also constitute key nodes. Destruction of bank or property records could cause significant problems to the economy and discourage foreign investment.[197] In a system lacking electronic payment options, the physical location of banks becomes more important.

See also description under *Public Administration*.

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

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[196] In the 1980s, the CIA printed millions of *afghanis*, the currency of Afghanistan, with two goals in mind: (1) fund mujahidin groups and (2) undermine the Afghan economy. Kaplan, *Soldiers of God*, p. 23.

[197] "It is significant that insurgent efforts to destabilize Iraq have focused on the destruction of records that are essential for stabilization, which requires accurate records of property, contracts, and general information." Eash, "Supporting Technologies," pp. 104–105.

This will take considerable resources, personnel, and expertise. The aggregate number of personnel needed would be somewhat stressing for Blue, but the critical shortfall would be in expertise. If the public and private financial institutions are dysfunctional, the key consequence will be a stifling effect on economic recovery—and growth could be stifled. If the small business owner can't get a loan to expand, then he or she can't hire those new employees. Without access to capital, thousands of potential jobs never happen. This increases the largest pool of potential recruits—the unemployed—for the insurgents.

Any effort to improve this system will need to hit the ground running with a well thought-out plan. The cost of "learn as you go" will be high: prolonging economic stagnation will assist the insurgents with their recruiting.
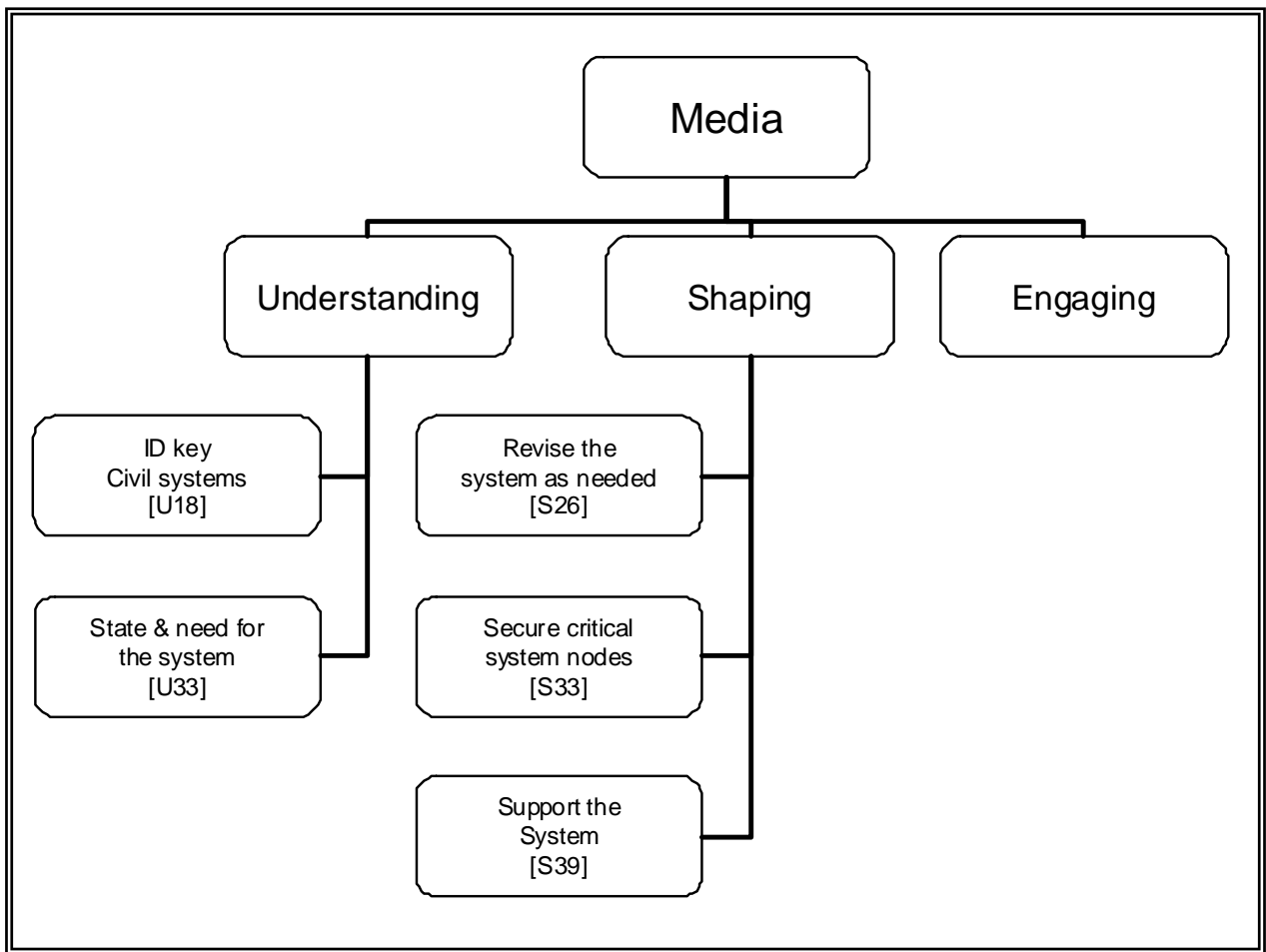
Figure IV-16. Government and Private Media Mission

P. Mission: Government and Private Media

[U18]   Identify critical civil-system nodes needing extra security

See description under *Public Administration*.

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

The media, both public and private, can substantially shape public opinion. If public debate is not shaped by a diversity of views reflective of the population, some groups may feel left out of the process of peaceful change. Under-regulated media might be used to spread inflammatory messages that incite violence.[198] Some ability is needed to track the efficacy of this system and give time for corrective action, or to prepare for the security consequences.

What government media organizations exist? What proportion of the population can they reach and are they perceived as credible by the population?[199] Do the various government media outlets coordinate well with each other and with the rest of the government? What portion of the government is responsible for regulating private media organizations? What private media organizations exist? How much of the population do they reach and are they perceived as credible? What is the state of relations between government and private media? Does the private media landscape provide an outlet for a wide variety of viewpoints? Is private media over- or under-regulated?

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[198]   In 1994 in Rwanda, extremist Hutu messages were broadcast over government and commercial radio, inciting violence against the Tutsi minority. Scott R. Feil, *Preventing Genocide: How the Early Use of Force Might Have Succeeded in Rwanda, A Report to the Carnegie Commission On Preventing Deadly Conflict*, April 1998, accessed 26 July 2005 at http://www.wilsoncenter.org/subsites/ccpdc/pubs/rwanda/rwanda.htm.

[199]   A study of fourth-generation warfare, written by a USMC colonel, cited the loss of US Government media credibility as a critical factor in the American public seeing the Tet offensive (February 1968) as a loss for the United States. The American public saw too many differences between what was being said by government media and what they were seeing and reading in other media. Hammes, *The Sling and the Stone*, p. 72.

See also description under *Public Administration.*

[S26]   Expand/Improve each civil system as needed

If the HNG is having trouble getting its message out, it may be time to expand the government media system. In some cases, private media outlets should be expanded either to provide a greater diversity in public debate, or else to assist government media in connecting more of the population together. Private media expansion could be accomplished through government incentives (e.g., favorable taxation or regulation).[200]

See also description under *Public Administration.*

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Government broadcast nodes are a common target in coup attempts. Control of these nodes by insurgents can (1) present the illusion of widespread control, and (2) allow the insurgents to get their messages out to a large proportion of the population. The government's overall message to the population could be significantly undercut by occasional intrusions by the insurgent message, especially when delivered by the government's own media.[201]

On the private media side, the more likely target would be senior personnel. Threats could be quietly made to key individuals to subtly change their edito-

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[200] In 2003, DoD contracted with a private firm, Science Applications International Corporation, to set up and run the Iraqi Media Network (IMN). Six months after the fall of Saddam, the US State Department conducted a study of Iraqi television viewing habits. Of the Iraqis with satellite dishes, 63 percent got their news from al-Jazeera and al-Arabiya, while only 12 percent got their news from IMN. Chandrasekaran, *Imperial Life*, pp. 131–136.

[201] During a week in June 2002, members of the outlawed Falun Gong movement hacked into China's government television system. A total of nineteen national and regional channels sporadically had state programming replaced with messages from the Falun Gong. Chinese Embassy website, accessed 24 June 2005 at http://www.china-embassy.org/eng/zt/ppflg/t36611.htm.

rial slant to favor the insurgents. Detecting this sort of influence would be very difficult.

See also description under *Public Administration*.

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

While the private media will operate itself, the government media and media-regulating organizations will not.
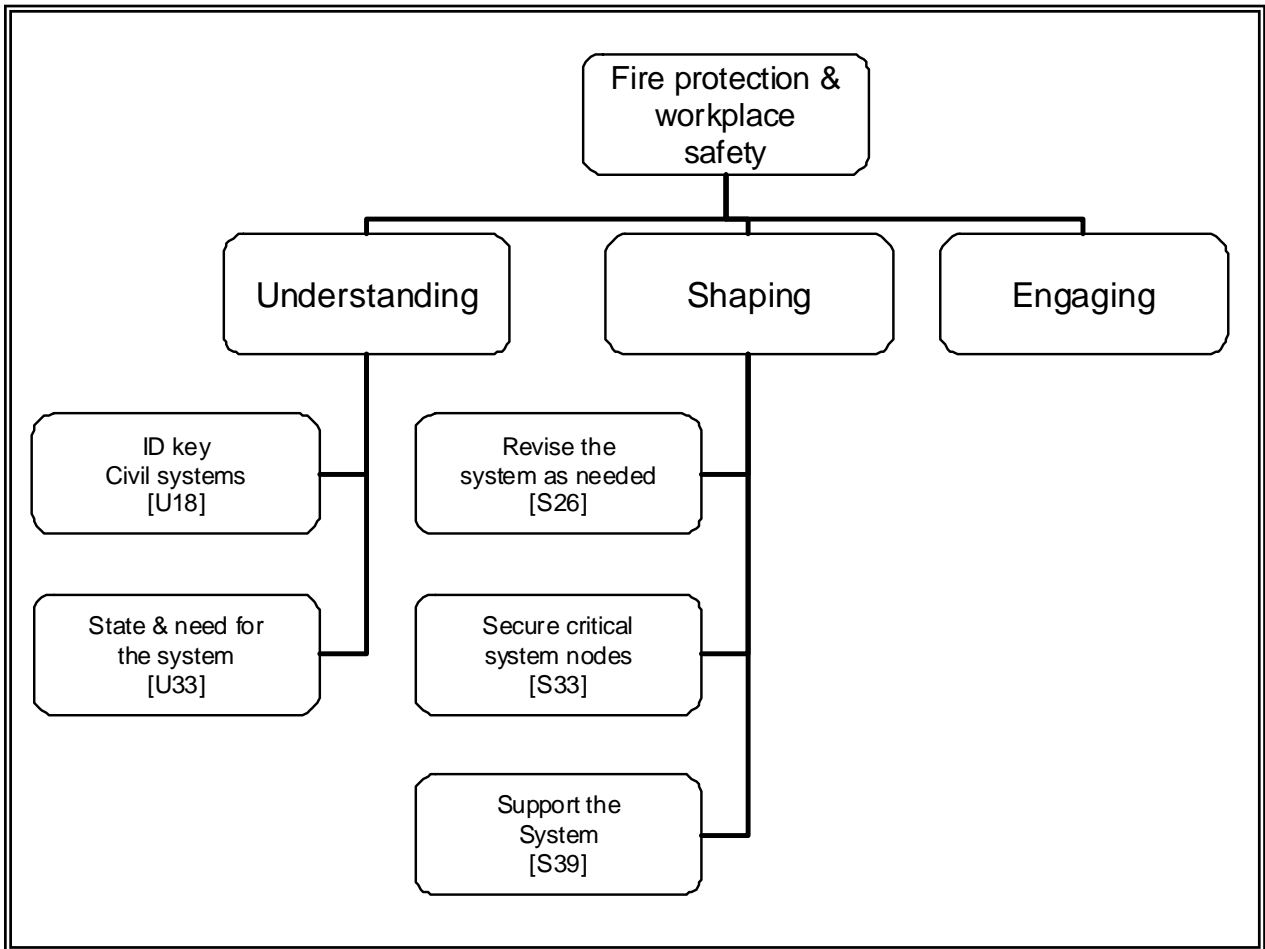
Figure IV–17. Fire Protection and Workplace Safety Mission

Q. Mission: Fire Protection and Workplace Safety

[U18] Identify critical civil-system nodes needing extra security

See description under *Public Administration*.

[U33] Map the current state of each civil system, its ongoing performance, and the need for it

Fire protection is important not only for the safety of individual families but also because of the widespread damage fires can cause in urban areas. The HNG's fire protection efforts can be broken out into two areas. How much success has been had in getting individual homes and families protected from fire? What measures have been taken to prevent the spread of fire? Workplace safety is important both for the workers themselves and the proximate population. The proximity of many industrial sites to urban areas means that workplace safety also translates into safety for the general population. [202]

See also description under *Public Administration*.

[S26] Expand/Improve each civil system as needed

If the current system is incapable of providing adequate fire protection to the population, it will need to be changed. Changing structure patterns in a city or new urban areas could drive the need to expand. Changes in the size and type of industries in a given area could also drive the need to change this system.. Workplace safety regulations do little on their own to protect workers if regulations are not backed up by regular inspections and compliance enforcement.

[S33] Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

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[202] In 1984 an industrial accident in Bhopal India released a cloud of methyl isocyanate that killed approximately 3800 people. Accessed 12-9-06 at http://www.bhopal.com/chrono.htm.

A fire protection system critical node might be a large fire station, one that houses a large number of firefighters and equipment, and is responsible for a large area. Destruction of such a node could leave a large area vulnerable to fire, especially if the attack were coordinated with other attacks in the same area.

A critical node in the workplace safety system would be the traveling inspectors. Their need to travel across wide areas makes their security difficult. A campaign of assassination against these inspectors could lead to the system breaking down.

See also description under *Public Administration.*

[S39]   Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

Expertise in this area will be job specific, and thus will require intimate knowledge of the hazards of every type of work in the economy. Identification of the hazards is but the first step, necessarily followed by the establishment of workplace safety rules, the monitoring of employer compliance, and recording keeping on workplace safety statistics.

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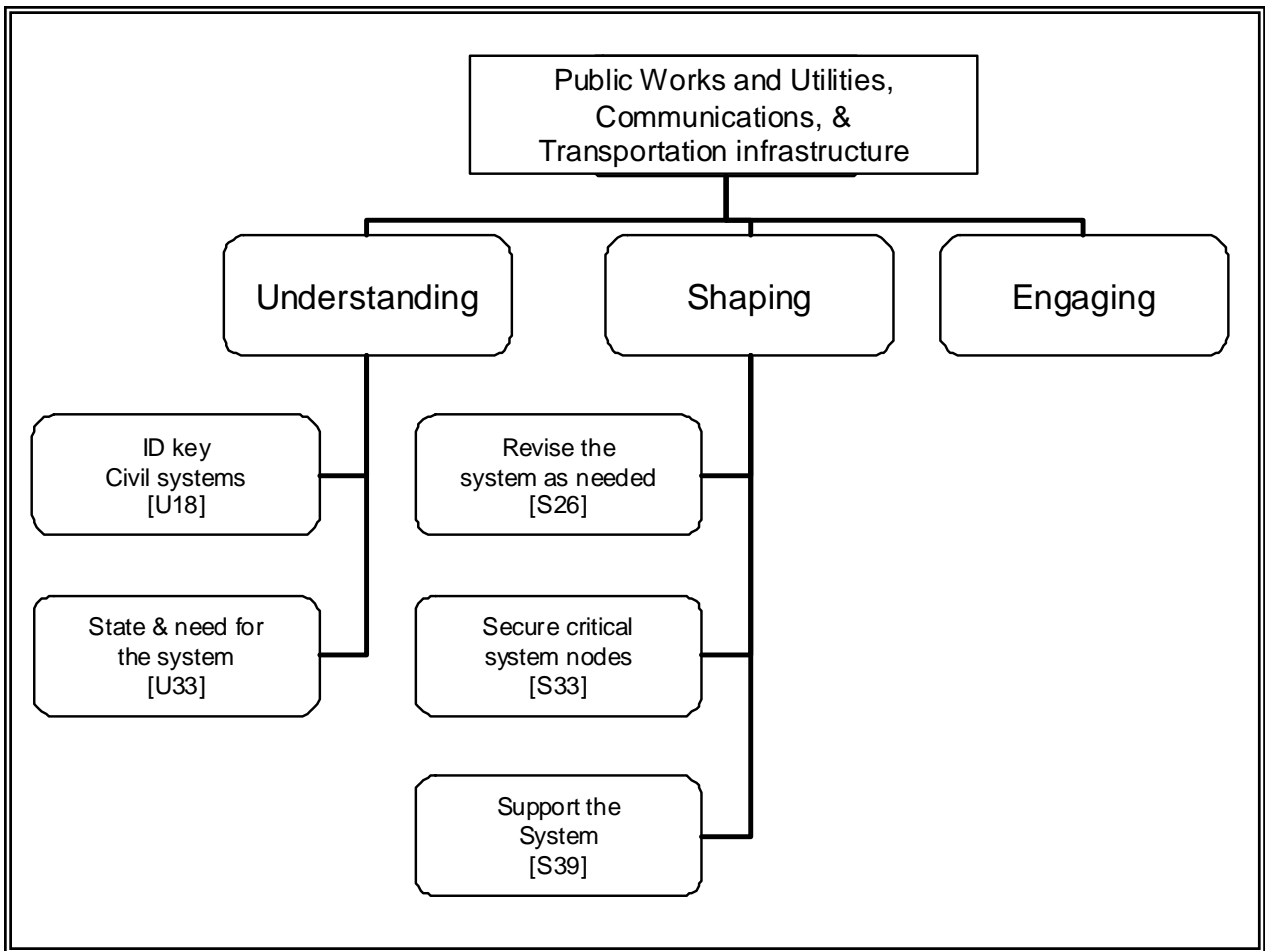
Figure IV–18.   Public Works and Utilities, Communications, and Transportation In-frastructure Mission

R. Mission: Public Works and Utilities, Communications, and Transportation Infrastructure

[U18]   Identify critical civil-system nodes needing extra security

See description under *Public Administration*.

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

The overall effect of the public utilities on the population's quality of life is huge.[203] The effect is evident when Americans lose water and/or power for just a few days from a hurricane or ice storm. The same is true of communications and transportation. These effects are relative to two variables: (1) the previous baselines of service, and (2) the expectations of the population. Is the public receiving the services it wants from the public works system*? The metric of success is not the amount of infrastructure, or the amount of a given commodity (e.g., kilowatts) produced, it's the amount of service the customer receives.* [204] The systems to be measured would include electricity, water, sewer, trash removal, telecommunications, road grid, rail grid, and air transportation. The first step is to map both the quantity and quality of the existing infrastructure. Some of this mapping should

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[203]   A May 2005 *Washington Post* article cited a poll in Iraq that asked Iraqis what the government's priorities should be. Fixing the electrical system ranked number one, ahead of crime at number four, and terrorists at number eight. One example would be the riots in Basra in the summer of 2003, to protest lengthy power cuts. Caryle Murphy and Bassam Sebti, "Power Grid in Iraq Far From Fixed," *Washington Post,* 1 May 2005, p. A01.

[204]   The same article cited a report on the US reconstruction effort with regard to US misjudgments on the condition of Iraq's electrical grid. The "original estimates of the damage done to the basic infrastructure from decades of neglect and warfare was significantly underestimated…" "Reconstruction chief Taylor said poor information plagued the effort from the start. 'Everyone assumed that the plant and equipment just needed some work,' He said. 'Well, it turns out it needs a lot of work. We assumed the Iraqis could and would take care of it and that's proven to be a wrong assumption." Murphy and Sebti, "Power Grid in Iraq Far From Fixed," p. A01.

be possible prior to the Blue team arriving.[205] As no IPB (Intelligence Preparation of Battlefield) effort alone will be sufficient, an on-site follow-up will be needed to complete the mapping of each system. Time will be a critical element of this capability. The day members of the Blue team arrive, public opinion will start an expectation clock on improvements.

See also description under *Public Administration.*

[S26]   Expand/Improve each civil system as needed

If either industry or the population expand or move, the infrastructure will need to migrate and change as well.[206] The interdependent nature of these various systems may require the synchronized expansion of multiple systems for problems that, at first glance, only call for the expansion of one.

See also description under *Public Administration.*

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Critical nodes in these systems will be expensive, long-lead facilities, or those nodes with the potential to cause disproportionate disruption. A water treatment plant could take years to replace and cost tens of millions of dollars. Other nodes may be relatively inexpensive to replace, but even short-term denial of their use cause system-wide disruptions. If a truck carrying hazardous materials is

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[205] Many urban infrastructure systems are built with foreign assistance, so these foreign partners could still be potential sources of information. International corporations that regularly do business with the HNG may also be a source. For example, a global shipping company may know a lot about the transport grid in a country it serves. Aside from national technical means, immigrants and individual business persons or tourists could be useful as well.

[206] The brisk market in consumer appliances after the fall of Saddam's regime has increased the electrical demand across present-day Iraq. This has led US officials to forecast significant increases in demand for electricity. Murphy and Sebti, "Power Grid in Iraq Far From Fixed," p. A01.

blown up at the junction of two major highways, the road grid for miles around could be impacted for days.[207]

See also description under *Public Administration.*

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

If the organizations running these systems need help, the assistance could come in the form of advisors with expertise, supplies, funding, infrastructure repairs, analysis of system faults, and rank-and-file personnel to operate components of the system. In some cases, the problem will be the absence of *any* organization to run a particular system. This will require building such an organization from scratch. Such a solution will not only take longer, it will also consume far more resources.

Any effort to improve this system will need to hit the ground running with a well thoughr-out plan. The cost of "learn as you go" will be high: prolonging economic stagnation will assist the insurgents with their recruiting.[208]

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[207] An example would be the severe disruption to traffic across the entire Washington, DC, metro area on 02 June 1999, when a truck crashed in the "Mixing Bowl" interchange in Northern Virginia, carrying 34,000 pounds of explosive black powder. The "Mixing Bowl" is a key interstate juncture (Interstates 395, 495, and 95) just inside the "Beltway." The crash occurred at 4 a.m.; and the hazardous nature of the truck's cargo slowed cleanup efforts, which took until 9 p.m. that night. Alan Sipress and Josh White, "Truck Crash Paralyzes Area Roads," *Washington Post*, 3 June 1999, p. A01.

[208] As of mid-April 2005, approximately twenty-four months after the capture of Baghdad, the United States has spent $1.2 billion fixing Iraq's electrical grid. According to a joint 2004 UN and World Bank study, fixing Iraq's power sector would cost $12 billion through 2007. Murphy and Sebti, Power Grid in Iraq Far From Fixed," p. A01. Iraqi oil exports in May 2007 were less than pre-war levels, and the same was true for electrical generation. Four years after the fall of Saddam's regime, Iraqi unemployment rates were still at 25 to 40 percent (as of May 2007). Michael O'Hanlon and Jason Campbell, *Iraq Index – May 2007*, (Washington, DC: Brookings Institution), pp. 37-40, http://www3.brookings.edu/fp/saban/iraq/index.pdf.
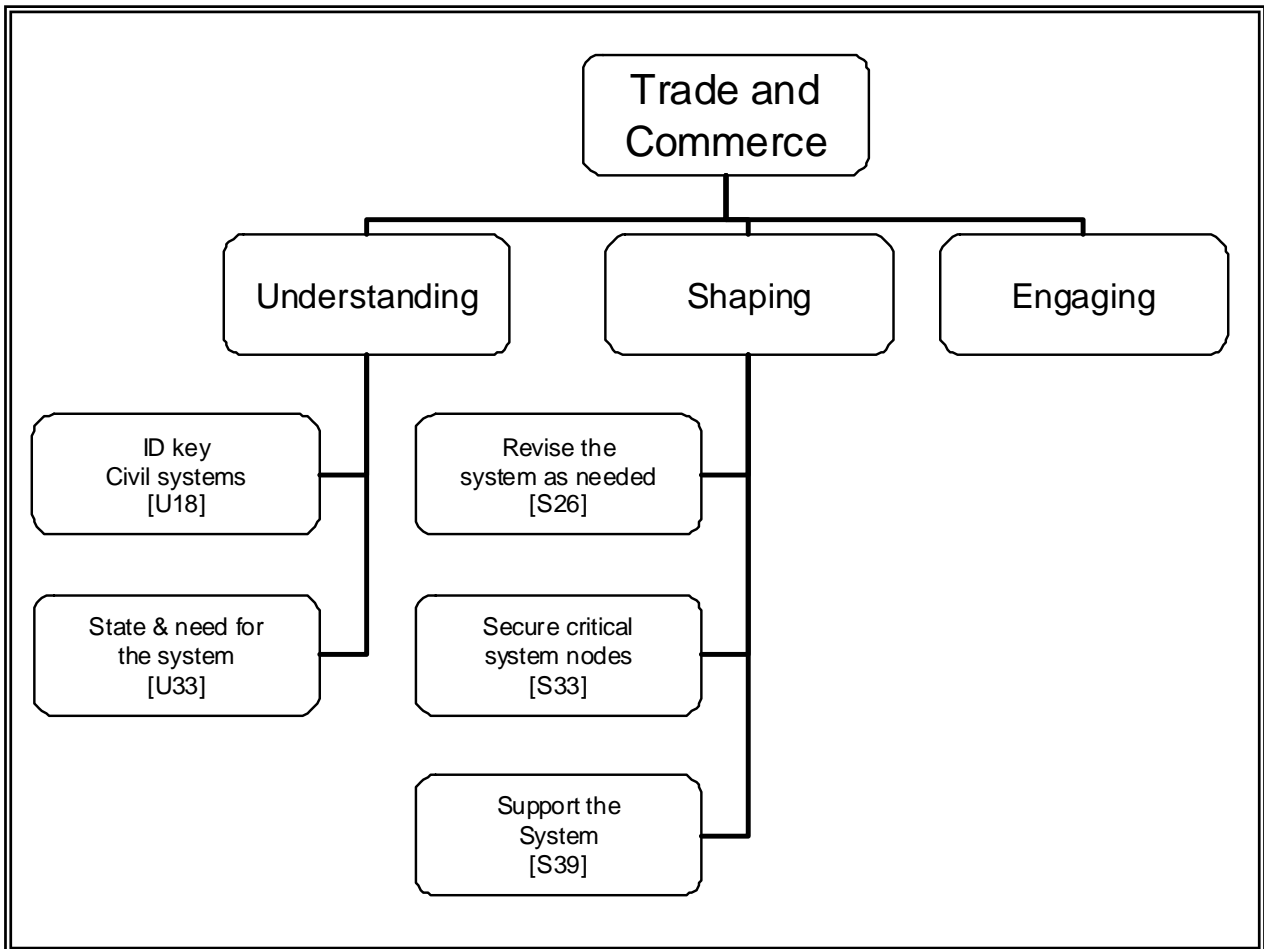
Figure IV–19.   Trade and Commerce Mission

S. Mission: Trade and Commerce

[U18]   Identify critical civil-system nodes needing extra security

See description under *Public Administration.*

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

This system will be a mix of direct control over the portions of the economy in government hands, oversight of the portions of the economy in private hands, and the creation and maintenance of an environment conducive to economic growth. The business environmental conditions that can encourage such an expansion can include taxation levels[209], regulation, infrastructure, labor pool quality and quantity, and international trade agreements. A mapping of this system would explore how well each function is being performed.

See also description under *Public Administration.*

[S26] Expand/Improve each civil system as needed

As the economy changes, so may the need for governmental oversight of private industry and efforts designed to encourage growth. Sectors of the economy owned by the government may need to change as well.

See also description under *Public Administration.*

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[209] In 2003, CPA officials abolished the Saddam-era import tariffs on a wide range of goods. That decision had two negative effects. The first was a surge in demand for electricity—beyond what the decrepit Iraqi infrastructure could bear—with a flood of imported consumer appliances. The second effect was to flood Iraqi roads with a sharply increased number of vehicles. Combined with a general breakdown in order, the road network was clogged, i.e., filled beyond its capacity. By CPA estimates, half a million cars were shipping into Iraq in the first calendar year of the occupation. Chandrasekaran, *Imperial Life*, pp. 124, 234–235.

[S33] Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Economic and trade-critical nodes can be both (1) individuals and (2) physical locations or assets. An individual might be a critical node if he or she were a leading business owner or a key government decision-maker. A physical critical node may be a central trading center (e.g., stock exchange), a virtual trading center (e.g., major commercial website), or a major natural-resource processing point (e.g., oil pipeline or well).[210] If a potential target is either expensive or time consuming to replace, and its destruction or loss has a ripple effect across the economy, then it should be considered a critical node.

See also description under *Public Administration*.

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

This system may need help in the form of personnel with the appropriate expertise, funding, infrastructure, or supplies. The worst case would be no system at all, requiring one be built from the ground up. This would then require a great deal of resources, expertise, and time. Any such effort would demand a detailed knowledge of the region's economy.

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[210] A major target of Irish Republican Army (IRA) bombings in the 1980s and 1990s was London's central business district. "In 1992, the IRA bombing of London's Baltic Exchange cost three lives and caused over $1 billion in damage." Building off of this model, they struck again in 1993, bombing London's "Square Mile, England's financial center, again inflicting over $1 billion worth of damage. This bomb, detonated over the weekend when casualties would be low, targeted British economic strength." Testimony of Frank J. Cilluffo, Co-chairman, Cyber Threats Task Force Homeland Defense Project, Center for Strategic & International Studies, *Critical Infrastructure Protection: Who's in Charge,* Testimony to the U.S. Senate Committee on Government Reform, 4 October 2001. Accessed 27 July 2005 at http://www.senate.gov/~gov_affairs/100401cilluffo.htm.

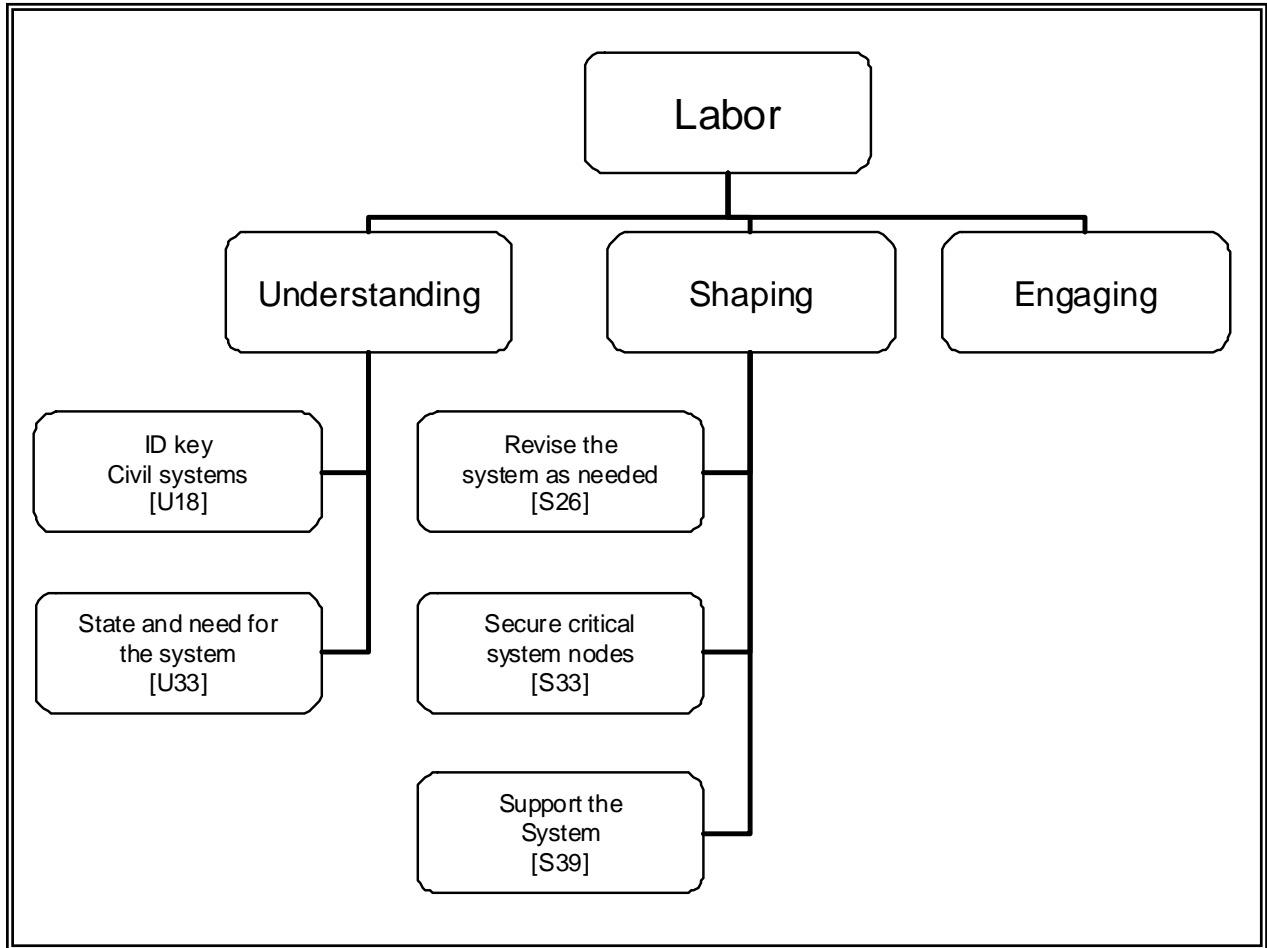This page is intentionally blank.

Figure IV–20. Labor Mission

T. Mission: Labor

[U18] Identify critical civil-system nodes needing extra security

See description under *Public Administration*.

[U33] Map the current state of each civil system, its ongoing performance, and the need for it

Unemployment is a great Petri dish for growing insurgents.[211] These individuals are desperate for money and tend to view the status quo as not in their favor; they also have lots of time for "hobbies." Conversely, individuals with jobs have more to lose, are more risk averse, and are more likely to view the future with hope. Attacking this potential recruitment pool should be a high priority. Society will be in a bidding war with the insurgents for the services of these unemployed. If society is paying nothing, it becomes easy for the insurgents to top that offer. Depending on the skill set involved, certain individuals are worth special attention.

While not part of this mission, Capability U16 ("Monitor the transition of former indigenous military forces, security forces, militias, and police personnel to new careers") addresses a specialized subset of the labor pool, and is thus included under a different mission, Disarmament, Demobilization, and Reintegration (page IV–173).[212]

Some key questions that could be asked about the labor pool are how many people are unemployed or underemployed?[213] How long do people typically stay unemployed? What are the demographic and geographic patterns to this

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[211] The top US field commander in Iraq in 2006, LTG Peter Chiarelli, USA, on the effect of unemployment on violence: "One of the key hindrances to us establishing stability in Iraq is the failure to get the economy going." Josh White and Griff Witte, "To Stem Iraqi Violence, U.S. Aims to Create Jobs," *Washington Post*, 12 December 2006, p. A01.

[212] For a description of clashes between CPA efforts to find new employment for Saddam's weapons scientists, and DoD efforts to search for WMD and interrogate these scientists, see Chandrasekaran, *Imperial Life*, pp. 253–255.

[213] In the summer of 2005, the Iraqi Labor Ministry had registered 110,000 unemployed in Baghdad alone. Jonathan Finer and Omar Fekeiki, "Tackling Another Major Challenge in Iraq: Unemployment," *Washington Post*, 20 June 2005, p. A10.

unemployment?[214] How much of the unemployment appears to be the result of temporary disruptions in the economy versus long-term sources of unemployment? What government agencies are tasked with tracking the labor market and assisting the unemployed? What facilities and assistance is available to the unemployed, and how effective are these facilities and this assistance? What sort of private sector assistance is available for the unemployed? Does the business sector suffer from personnel shortages? What percentage of the workforce is foreign and why? What sectors of the economy employ the most people? Are there unions and how well do they work with business?

See also description under *Public Administration.*

[S26]   Expand/Improve each civil system as needed

Changes in population size, population movements, and the size and shape of the economy can dramatically reshape the labor market. The system that deals with these issues must adapt, in turn, as well.

See also description under *Public Administration.*

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Critical nodes for this system could be locations with a large number of workers, or worksites whose disruption would cause a ripple effect of unemployment in other industries. For example, if a particular oil pumping station employs only 100 people, but its destruction would idle factories employing 10,000 for three months, then this oil pumping station is a critical node. Facilities where the unemployed physically interact with the government for processing or retraining could also be critical nodes, depending on their size and aggregate number. Certain business leaders could also be critical nodes.[215] If a particular business leader

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[214]   In the late 1990s, just before the second Russian military campaign in Chechnya, unemployment in Chechnya was about 80 percent, and roughly 100 percent among the young. Only 10 percent of the population was engaged in some form of legitimate business. Aldis, *The Second Chechen War*, p. 15.

[215]   In July 2003, a government factory manager was assassinated on his way to work. Unlike most factory managers, he had been willing to talking openly about the need to privatize and how that would sharply reduce, in the short term at least, the number of employees needed.

(Continued)

was willing to take the risk of development in a poor and dangerous part of the country, those plans could die with that leader if he or she were assassinated. Some businesses might leave the country if their leadership feels too threaten.

See also description under *Public Administration*.

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

Operating this system will be moderately demanding in personnel and facilities but more so in expertise. To retrain or advise the unemployed requires a local knowledge about what segments of the economy are hiring, what skills are needed in each field, and the training options. Local experts should play a major role in this system, with support from outside entities that have the additional expertise and resources. If a government labor department already exists, then it could be supported by other Blue team members. If no labor department exists, then one will have to be set up from scratch. Union and business management dispute mediation would also be a part of any government labor department.

Any effort to improve this system will need to hit the ground running with a well thought-out plan. The cost of "learn as you go" will be high. [216] To an HNG, its reaction time of six months may seem fast, but to an unemployed father of four, that is enough time to change a model citizen into a desperate insurgent. [217]

After his death, the willingness of other managers to engage the CPA on the topic of privatization dropped off sharply. Chandrasekaran, *Imperial Life*, pp. 223–224.

[216] A June 2005 *Washington Post* article cited a new effort to combat unemployment with a network of training and recruitment centers in cities like Basra, Mosul, and Baghdad, set up by the Iraqi government and USAID. The creation of these centers was a positive development but one that should have occurred in the first few months of U.S. forces arrival, not two years later. Jonathan Finer and Omar Fekeiki, "Tackling Another Major Challenge in Iraq: Unemployment," *Washington Post*, 20 June 2005, p. A10.

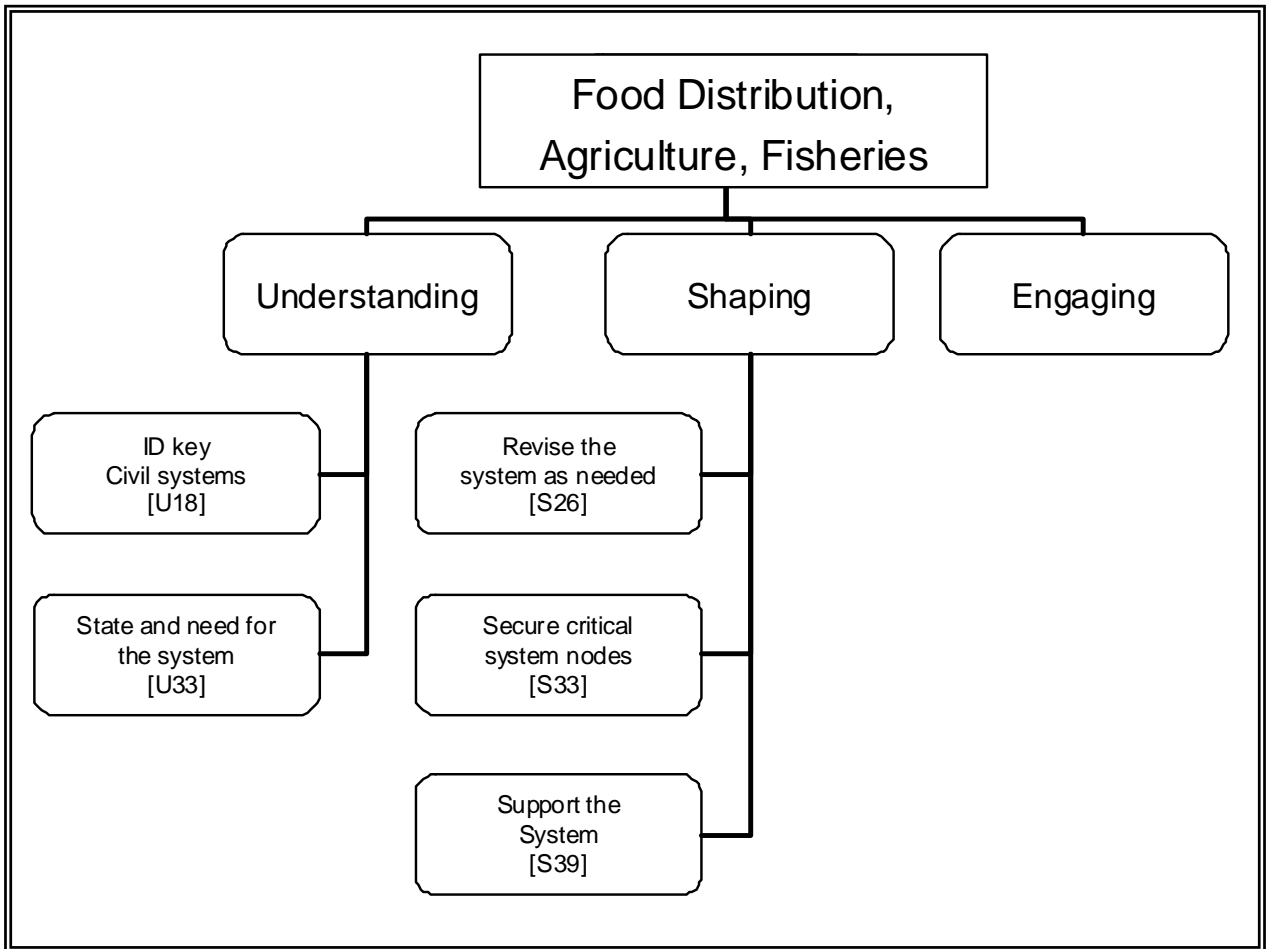[217] *See* footnote 209 (O'Hanlon and Campbell, *Iraq Index – May 2007*).

Figure IV–21.   Food Distribution, Agriculture, Fisheries Mission

U. Mission: Food Distribution, Agriculture, Fisheries

[U18]   Identify critical civil-system nodes needing extra security

See description under *Public Administration*.

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

Few civil systems have a greater effect than this one when malfunctioning. Problems with domestic food production will be tolerated by the population as long as imports make up any shortfalls. Problems in food distribution will not be tolerated by the population as they directly affect what food is available to them and at what price. The public will react sharply to any significant rise in food prices or drop in supplies. Even the most draconian dictatorships can lose control when food supplies reach critical levels.[218] History is replete with "food riots." Careful attention to the performance of these systems may detect problems before those problems generate mobs in the streets.

Key questions to ask are, how well is the existing food production and distribution system functioning? How sustainable is the current system?[219] How efficient are these two systems? Is there a lot of wastage in food transportation? What proportion of foodstuffs are imported? How affordable is the available food?

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[218]   Even a state like North Korea had difficulty controlling its population at the height of the mid-1990s famine. Pyongyang had traditionally used the food distribution system to control population movement, making food ration books good only in the designated home village. But when the official food distribution system collapsed, masses of people began to wander the country in search of food. Andrew S. Natsios, *The Great North Korean Famine: Famine, Politics, and Foreign Policy*, (Washington, DC: United States Institute for Peace Press, 2001), pp. 72–85. *See also* Kongdan Oh and Ralph C. Hassig, *North Korea: Through the Looking Glass*, (Washington, DC: Brookings Institution Press, 2000), pp. 145–146.

[219]   In 2003, CPA officials were looking for ways to cut sharply the subsidies given to the Iraq population, e.g., free food and fuel at well below market cost. At the time, subsidies were accounting for over half of Iraq's national budget, and the food rations alone were costing $5 billion a year. Chandrasekaran, *Imperial Life*, p. 227.

What proportion of the food production and distribution system is in private hands? What government agencies regulate and monitor the food system? Is the food system suffering from infrastructure limitations?

See also description under *Public Administration*.

[S26]   Expand/Improve each civil system as needed

Key questions for this capability are, is the overall amount of food produced sufficient for domestic consumption? Can the food distribution system handle all the food produced or imported? What are the population growth trends, and how should the food distribution and production system adapt? How long with that adaptation take? Are there food export opportunities that could be tapped with an expansion of these systems? Are population movements changing the food production and distribution needs?

More importantly for the Transition phase, there may be a need to train the local workers. If indigenous expertise doesn't already exist, it must be created. As stated earlier, this effort should *not* be considered as belonging in the final phase of transition but rather as being integral to the process from the beginning.

Any effort to improve this system will need to hit the ground running with a well thought-out plan. The cost of "learn as you go" will be high: hunger and patience rarely coexist. The problems of a country's food production and distribution system may take several years to correct, and in the interim, food imports will be required to correct shortfalls. It is always possible that initial estimates of the health of that system were wrong. To cover that contingency, the possibility of rapidly ramping up food imports needs to be included in planning. Unlike some other civil systems, this one *has* to work well or things get ugly fast.

See also description under *Public Administration*.

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

Most food production systems are fairly dispersed as a reflection of the large land area needed, so this part of the system will be less vulnerable to knock-out blows. However, food production may be vulnerable at some critical transportation nodes, for example, a major bridge, waterway, or port.

See also description under *Public Administration.*

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

In most cases, this system will be a major consumer of labor, natural resources, infrastructure, and land. It is unlikely an outside entity will come in and run the entire system: the scale of the effort is too large. A more likely scenario is for an outside entity or entities to provide assistance in key areas while domestic entities operate the bulk of the system. These outside entities could provide expertise, equipment, or supplies.
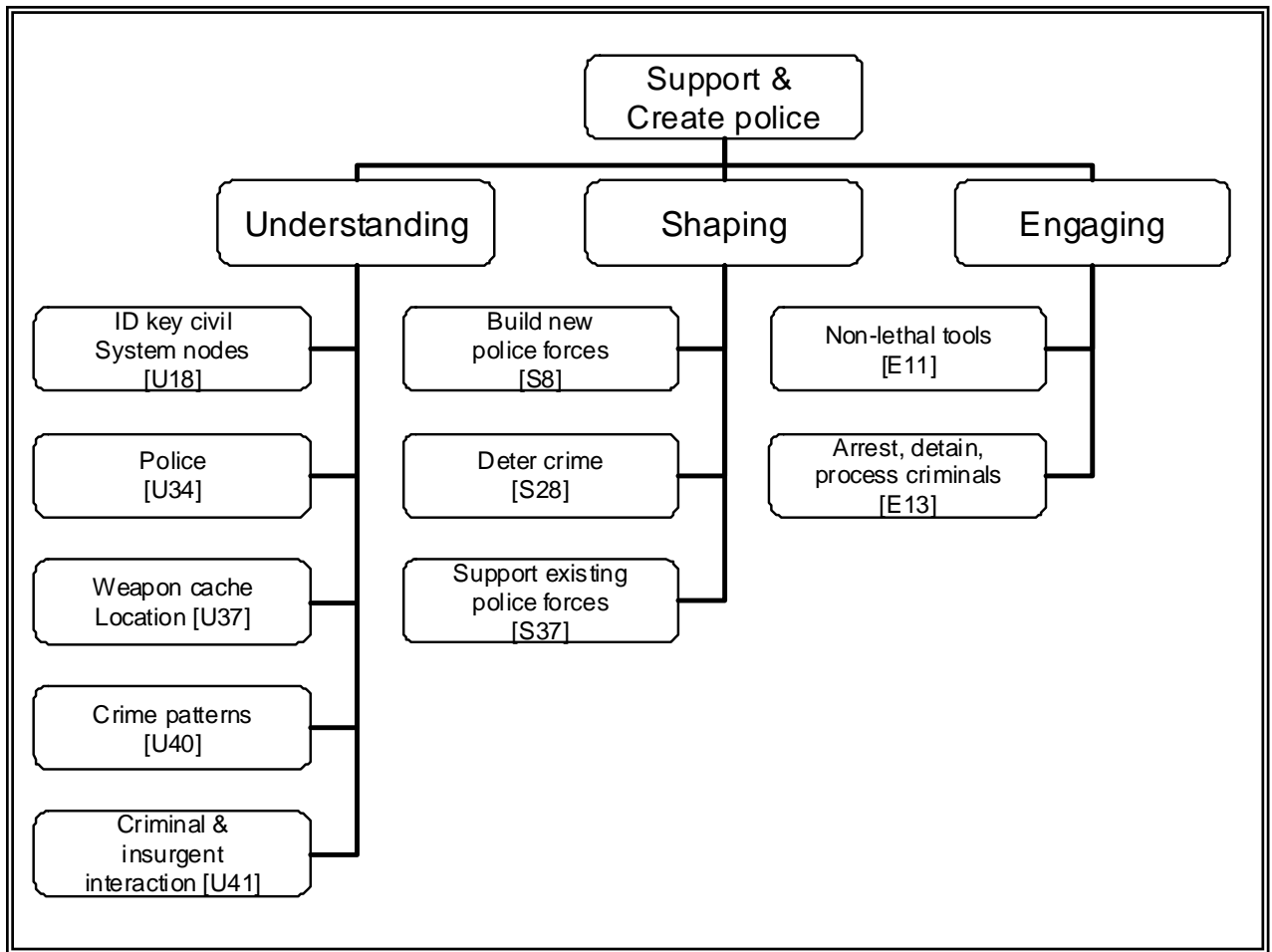
Figure IV-22.   Support and Create Police Forces Mission

V. Mission: Support and Create Police Forces

[U18]   Identify critical civil-system nodes needing extra security

See description under *Public Administration*.

[U34]   Map all relevant details of all current or recently dissolved police forces, their ongoing performance, and the current and future need for such organizations

A capability in need of substantial improvement.

See also description under *Working with Indigenous Security Organizations*.

[U37]   Locate weapon caches

See also description under *Neutralize Red Forces*.

[U40]   Map the patterns of crime

A capability in need of substantial improvement.

Even in relatively stable societies, combating crime is an ever-present duty. Even in a country experiencing an insurgency, crime may still constitute the greater destabilizing influence. [220] To combat effectively crime requires some basic understanding of the patterns of criminal behavior, both in terms of acts and victims.[221] The necessary information will come largely from four sources. The first is that gathered by law enforcement personnel. A second source is from the criminals themselves. The third and most important source of information is the

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[220] In a 16 May 2003 *Washington Post* article, MG Buford C. Blount III, commander of the Army's 3rd Infantry Division, offered his view on the source of the chaos at that time. He estimated that 90 percent was from common criminals and only 10 percent from former regime elements. Peter Slevin and William Booth, "Forces Step Up Arrests In Iraq: Occupation Chief Vows to Pursue Hussein Loyalists," *Washington Post*, 16 May 2003, p. A01.

[221] A State Department's study specifically mentioned the abuse of children, women, and human trafficking. US State Department, Office of the Coordinator for Reconstruction and Stabilization (S/CRS), *Post-Conflict Reconstruction Essential Task*s (April 2005 version),

population. A fundamental variable in how well crime can be suppressed will be the degree to which the population volunteers information. A lack of safety and confidence can undercut all three of these information sources. If police officers feel at too great of risk, they may find excuses not to be out on the street. If informants-criminals don't feel the police can protect them, the threat of retribution will silence them. If the population fears either the reaction of the criminals or the reckless response of police, they will stop picking up the phone.

In the absence of local police forces, US personnel deployed to Iraq have proved ill suited to understanding the patterns of criminal activity there.[222] Language barriers, the episodic and sparse presence of US military personnel in the neighborhoods, and the lack of law enforcement training and equipment have all contributed to this poor performance.

[U41]   Map the interaction between criminals and insurgents

A capability in need of substantial improvement.

In addition to the general disruption caused to a society by crime, criminals and criminal organizations are a potential ally of insurgents.[223] Both groups operate covertly for their own personal gain, with extensive logistical networks, and regularly use violence. Understanding the degree of interaction between these groups will be important for combating both.[224] The amount of cooperation between criminals and insurgents may dictate the amount of cooperation needed between military and police forces. At least some degree of intelligence sharing will be needed between the police and military.

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[222] In a November 2005 National Security Council document on strategy for Iraq, criminals were not considered a US problem, "…but we judge that such elements can be handled by Iraqi forces alone…" *National Strategy for Victory in Iraq*, p. 7.

[223] "The insurgents continue to rely on criminal elements to extort and steal money or to kidnap people for ransom." Hashim, *Insurgency and Counter-Insurgency in Iraq*, pp. 169.

[224] In 1957, an Algerian FLN insurgent was dispatched to France to bring the war to French soil. He was caught and jailed shortly after arriving, but then set about organizing FLN cells in the French prisons. Horne, *A Savage War of Peace*, p. 237.

Criminals themselves may be a source of intelligence on their interaction with insurgents. This source of information should not be underestimated. Criminals live and die by their ability to read their environment; for an insurgent network to function in an area without the knowledge of a local mafia would be unlikely. It may be possible to provide short-term, unofficial incentives to criminals and criminal organizations to provide information on the insurgents or even to directly suppress the insurgents.

US personnel deployed to Iraq have had considerable difficulty understanding the relationship between criminals and insurgents. Language barriers, episodic and sparse presence of US military personnel in the neighborhoods, and the lack of law enforcement training and equipment have all contributed to this poor performance. DoD intelligence efforts also tend to pay scant attention to criminal activity, treating it as under the purview of local law-enforcement organizations.[225] But the weakness or absence of local law-enforcement organizations in Iraq leaves this role unfilled.

[S8]   Organize, train, and equip *new* police organizations as needed

In some cases, entirely new organizations may need standing up.[226] This will entail a greater burden to organize, train, and equip than supporting an existing organization.[227] The timelines for setting up these new organizations may be

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[225] In a November 2005 National Security Council document on strategy for Iraq, criminals were not considered a U.S. problem, "…but we judge that such elements can be handled by Iraqi forces alone…" National Security Council, *National Strategy for Victory in Iraq*, p. 7.

[226] A July 2005 report by the inspectors general at the US Defense and State Departments cited significant problems with screening new police recruits. The report stated that it was a continual concern that both criminals and insurgents were passing through the screening process and entering the police workforce. "U.S. Report Faults Iraqi Police Screening," Associated Press, 26 July 2005, accessed 26 July 2005 at www.washingtonpost.com.

[227] During the Mahdi Army uprising in March–April 2004, one police station with 140 officers was overrun by the militia. The armory for the station held only ten AK-47s, only half the officers had pistols, and only a few guards at the front door had US-style body armor. Chandrasekaran, *Imperial Life*, p. 273.

very long, sometimes measured in years. Depending on the scale of the organization, a large metropolitan area, for example, the resources needed may be extensive.

[S28]   Deter crime

A capability in need of substantial improvement.

In some ways, deterring a crime is even more useful than catching the perpetrator after the fact. If the apparent passive security measures taken for a particular crime are robust, some prospective perpetrators will be deterred. A key performance criterion for passive security measures is that they are credible in the eyes of a criminal. While deterrence does not change the overall behavior pattern of the criminal, or prevent them from committing other crimes in the future, society is spared the cost of that particular crime. Active measures might take the form of "we're watching you" messages delivered to the appropriate groups. The crafting and targeting of these messages is demanding, and not unlike the information operations directed at the insurgents.

US forces in Iraq lack the language skills, local knowledge, relationships with the population, and persistent and expansive presence to deter crime. Aside from the physical limitations, a cultural barrier exists within DoD against using US forces for policing duties, a carry over from legal limitations to such use on US territory.

[S37]   Support existing police forces with supplies, personnel, equipment, and funding while managing them

Indigenous police forces are a critical element for dealing with both criminals and insurgents. Their cultural understanding and language skills can't be matched by foreign troops. They can spot the minor variations in patterns created when insurgents enter a new neighborhood, variations that would usually go unnoticed by foreign troops. This more nuanced understanding of their environment also aids in differentiating insurgent actions from criminal ones, or detecting collaboration between insurgent and criminal organizations.

Once the needs of the existing organizations are identified, US Government agencies may have to fill them. This help may come in the form of training personnel, equipment, supplies, intelligence, and/or funding.[228] Key to this is an accurate understanding of what these organizations need to improve their performance, which may differ from what they ask for.

[E11]   Non-lethal tools for separating or keeping separate the insurgents from the civilian population

A capability in need of substantial improvement.

Police work often involves the need to detain individuals in a non-lethal fashion.

See also description under *Neutralize Red Forces*.

[E13]   Apprehend, process, and detain criminals via the courts and detention facilities

A capability in need of substantial improvement.

The security of the population can be threatened just as much by common criminals as by insurgents. If in the early phase of US military involvement the local police forces are dysfunctional or nonexistent, then US military personnel will need to step in and enforce some basic level of law and order. Failure to address this obvious threat to the safety of the population will seriously damage relations between the people and the United States.[229]

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[228] On 3 July 2005, US Attorney General Alberto Gonzales announced in Baghdad the formation of an Iraq anti-crime task force to aid Iraqi law-enforcement agencies. The task force would include about ten US investigators from the Federal Bureau of Investigation, the US Marshals Service, and the Bureau of Alcohol, Tobacco, Firearms, and Explosives. Prior to this task force, the US Justice Department had attempted to keep FBI agents and US prosecutors out of direct involvement in Iraqi cases. Dan Eggen, "U.S. Taking More Direct Role on Iraq Crime," *Washington Post*, 5 July 2005.

[229] A sergeant in the 3rd Infantry Division was quoted in a 02 June 2003 newspaper article that he didn't have authorization to stop any criminal activity, included any that occurred in his presence. "We can report an incident, but that's about it." Ilene R. Prusher, "Fear of Crime Holds Up U.S. Effort to Disarm Iraq," *Christian Science Monitor*, 2 June 2003.

An important consideration here is the difficulty of discerning insurgent behavior from common criminal behavior. At times, the behavior itself will be identical, differing only by the kind of participants (criminal or insurgent) and/or motives.

In the case of immature or struggling court and detention facilities systems, extra attention may be required to coordinate police actions with those systems. Here in the United States, it's easy to take for granted the smooth interaction of these three components of the overall criminal justice system. Adapting one may be required to make up for deficiencies in another.

Deployed US military personnel are not equipped or trained to replace Iraq's broken local legal system, and those deployable personnel from US Government civilian agencies who do have the needed expertise are rare.

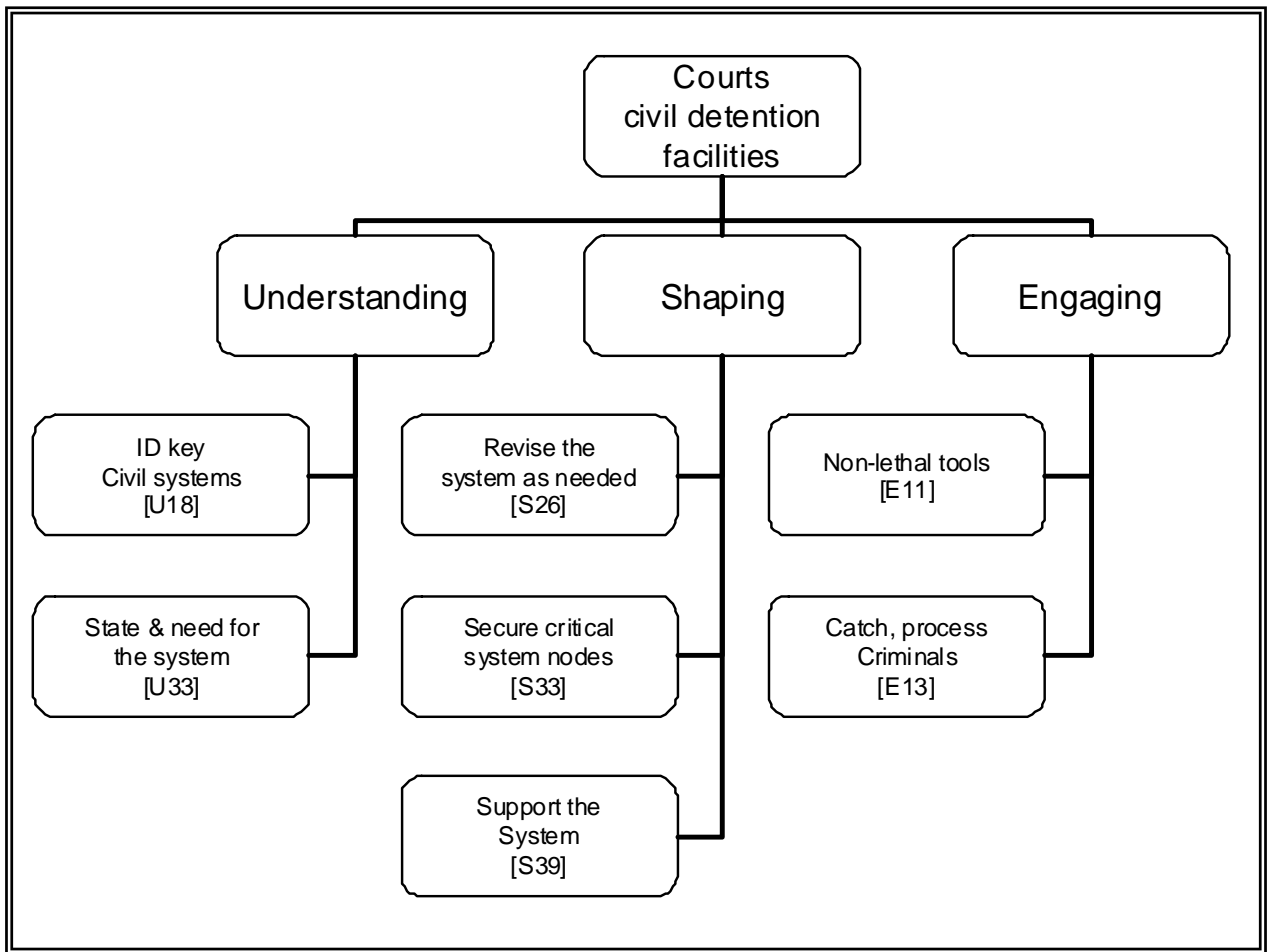This page is intentionally blank.

Figure IV−23.   Courts and Civil Detention Facilities Mission

W. Mission: Courts and Civil Detention Facilities

[U18]   Identify critical civil-system nodes needing extra security

See description under *Public Administration.*

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

A dysfunctional court system can cause significant public unrest or increases in criminal activity. If the population loses faith in the court system, this will fundamentally undermine the rule of law.[230] The loss of legal recourse will push people into extralegal conflict remedies, to include violence. Some ability is needed to track the efficacy of this system and give time for corrective action, or to prepare for the security consequences.

The Abu Ghraib scandal highlights the need for careful monitoring of the operation of detention facilities.[231] The following criteria could be used to evaluate the performance of those facilities: number of escapes, conditions, cost of operation, number of personnel needed for operation, protection from outside attacks, safety for guard personnel, and the safety of prisoners.

The key questions to ask are, what are the laws that guide the operation of the court and detention system, and are those laws followed? How does this legal system differ from the US system?[232] How quickly is the criminal-court system capable of processing defendants? How much do the court and detention systems

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[230] "Supporting the rule of law and building civil societies where they do not exist today, or where they are in their infancy, is fundamental to winning the long war." US Department of Defense, *Quadrennial Defense Review Report*, 6 February 2006, p. 84.

[231] "The aberrant behavior on the night shift in Cell Block 1 at Abu Ghraib would have been avoided with proper training, leadership, and oversight." Schlesinger, *Final Report*, p. 13.

[232] Differences in systems could substantially change which legal strategies are effective. In Iraqi law, a de facto precedent absolves those who help family members by concealing a crime after the fact. Jonathan Finer and Andy Mosher, "For Soldier, a Posthumous Day in Iraqi Court," *Washington Post*, 28 June 2005, p. A11.

respect the rights of criminal defendants? Is there enough infrastructure and personnel for the court and detention systems to function? What is the conviction rate and what are the reasons for acquittal? Is there sufficient detention space for those convicted and awaiting trial?[233] Are the conditions for those detained acceptable? Some facilities may be in too poor a condition for legal use by US organizations, or at least not without a significant public relations risk.[234] Are the facilities secure from outside attack?[235] How well do the court and detention systems coordinate? How long is the wait for access to the civil-court system? Are the civil- and criminal-court systems considered impartial and effective in the eyes of the population? Are the rights and obligations of private property clearly defined and protected in the civil courts? Does the population have knowledge of the law or know where to go for information on new and existing laws?

See also description under *Public Administration*.

[S26]   Expand/Improve each civil system as needed

An expanded need for either the courts or detention space can be driven by several factors. A sudden increase in crime can be sparked by changing economic conditions or population migrations. Over time, increases in the population will also dictate some adaptation from these systems. Increases in economic activity or changes in the patterns of economic activity can increase the demand for the civil-court system. Given the delays attendant in expanding these large systems, changes in demand need to be anticipated. If the existing amount of detention space is insufficient or substandard, the existing facilities will need expansion, improvement, or augmentation with new facilities.[236] Failure to have sufficient

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[233] Consideration should be given to detaining insurgents and common criminals separately. The danger of a mixed detainee population is in the relationships and networks that could form between the two groups. Criminals are skilled at operating covertly, using violence, and forming organizations. These are all resources and skill sets from which the insurgent community could benefit.

[234] *See* footnote 94 (Schlesinger, *Final Report*, p. 79).

[235] *See* footnote 95 (Knickmeyer, "Zarqawi Said to Be Behind Iraq Raid").

[236] "Anticipating continued growth in the detainee population, U.S. commanders have decided to expand three existing facilities and open a fourth, at a total cost of about $50 million."

(Continued)

space can have a serious effect on the security. Such a shortage of space could force the early release of criminals, which, in turn, could encourage more criminal behavior by reducing the risk of long-term incarceration.[237]

See also description under *Public Administration.*

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement.

The key nodes in the court system are the lawyers and judges. These professions take many years of training, so the number of people who can do this work is very limited. The personnel pool may further shrink if a recent change in regimes has occurred, making some of the existing court system personnel untrustworthy. Additionally, the work these individuals will be doing against the insurgents will make them a natural target for attacks or intimidation.[238] Detecting covert threats to court system personnel, threats that can cause them to alter their judgments, will be very difficult.

Key nodes in the detention system are more likely to be the facilities. The need for high levels of security and economies of scale for providing it will foster large detention facilities. These facilities then may invite attack for two reasons.

Graham, "U.S. to Expand Prison Facilities in Iraq," p. A15. "The current military police organizational structure does not address the detention mission on the nonlinear battlefield characteristic of the Global War on Terror." "Attention should also be given to preparing for conditions in which normal law enforcement has broken down in an occupied or failed state." "There was ample evidence in both Joint and Army lessons learned that planning for detention operations for Iraq required alternatives to standard doctrinal approaches." Schlesinger, *Final Report*, pp. 48–56, 90.

[237] *See* footnote 131 (Graham, "U.S. to Expand Prison Facilities in Iraq").

[238] On 20 October 2005, one of the lawyers on the defense team of a senior Baathist (who was being tried for crimes against humanity) was abducted and killed. Michael Georgy, "Defense Lawyer in Saddam Case Abducted and Killed," Reuters, 21 October 2005, accessed 21 October 2005 at www.washingtonpost.com. The following week, lawyers defending Saddam Hussein suspended dealings with the Special Tribunal until their safety could be guaranteed. Shafika Mattar, "Saddam Lawyers Seek Guarantee of Safety," Associated Press, 26 October 2005, accessed 26 October 2005 at www.washingtonpost.com.

First, they offer the prospect of freeing a large number of captured insurgents. Second, damaging these facilities could significantly reduce the detention space available for captured insurgents. This, in turn, may dissuade US and host-nation forces from capturing insurgents, cause the early release of insurgents, or see a replacement with less secure new detention facilities.

See also description under *Public Administration.*

[S39] Organize, train, equip, man, fund, manage, and plan for each civil system

A capability in need of substantial improvement.

If a court and detention systems do not exist, or exist in an insufficient form, corrective action is called for.[239] A serious breakdown in any part of that system equates to a breakdown in the rule of law. Care must be taken to coordinate the court and detention systems, whether one or both are built or repaired.

The total resources needed to operate entire court and detention systems are daunting, both because of the expertise required and the personnel, funding, and infrastructure needed.[240] However, failure to have these systems will cost society far more. A lack of civil-court recourse will chase away most foreign investment, and will greatly dampen the local entrepreneurial spirit and competition. Economic winners and losers will determined not by efficiency and meeting market demand but rather by personal connections and violence. The lack of a

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[239] On 25 May 2005, a Ziyad Hassan was sentenced to 15 years for a roadside bombing that killed a US soldier. This was only the second time an Iraqi court had found an insurgent guilty of murdering a US soldier, and the first conviction ever of a roadside bomber. The court hearing this case was created by the US-led occupation authority in 2003 to handle serious crime. About two-thirds of the 490 cases brought before the court has resulted in convictions, many for relatively minor offenses. Jonathan Finer and Andy Mosher, "For Soldier, a Posthumous Day in Iraqi Court," *Washington Post*, 28 June 2005, p. A11.

[240] "As we have seen in Kosovo, Afghanistan, and Iraq, another critical gap in U.S. and international capacity is the lack of rapidly deployable capabilities to temporarily fill immediate 'emergency justice' needs." Michele Flournoy and Michael Pan, "Dealing With Demons," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 94. *See* footnote 73 (Moniz and Eisler, "U.S. Missed Need for Prison Personnel).

functional criminal-court system threatens the security of the population from two directions: (1) more criminals operating freely on the streets, and/or (2) a government unrestrained by laws in how it treats the population. Either way the citizens lose and are forced to spend a lot of their resources and energy toward personal protection. An inadequate detention system can undercut an otherwise functional court system. The deterring effect and the protection afforded to society of a prison sentence relates to the actual time served—not to the sentence pronounced in court or existing in the law.

Detention systems can be heavy consumers of both manpower and funding. For the end of fiscal year 2003, the Texas Department of Corrections reported 148,153 inmates, 27,524 employees, and a total budge of $2.5 billion.[241] Texas is a useful comparison as its population is roughly equal to that of Iraq (22.1 million vs. 25.3 million, respectively). It is instructive to note the Texas prison system has a ratio of 5.4 inmates per employee. At one point, the ratio at Abu Ghraib was 75 inmates per MP, making it difficult even to keep track of inmates.[242] While the budget figure for an Iraqi detention system would be driven down by much lower local wages, the Texas system isn't trying to repair decades of neglect or improve prisoner-care standards from Saddam-era levels.

[E11]   Non-lethal tools for separating or keeping separate the insurgents from the civilian population

A capability in need of substantial improvement.

Disturbances are a common occurrence in most detention facilities, and the ability to quell them in a non-lethal fashion would reduce the costs to all parties involved.

See also description under *Neutralize Red Forces*.

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[241]   *See* footnote 138 (Texas Department of Criminal Justice, *Annual Review 2003*).

[242]   *See* footnote 139 (Schlesinger, *Final Report*).

[E13]   Apprehend, process, and detain criminals via the courts and detention facilities

A capability in need of substantial improvement.

An important consideration is the difficulty of discerning insurgent from common criminal behavior. At times, the behavior itself will be identical, with only the participants and/or motives to differentiate insurgent from criminal actions.

In the case of immature or struggling court and detention facilities systems, extra attention may be required to coordinate police actions with those systems. Here in the United States, it's easy to take for granted the smooth interaction of these three components of the overall criminal justice system. Adapting one may be required to make up for deficiencies in another.
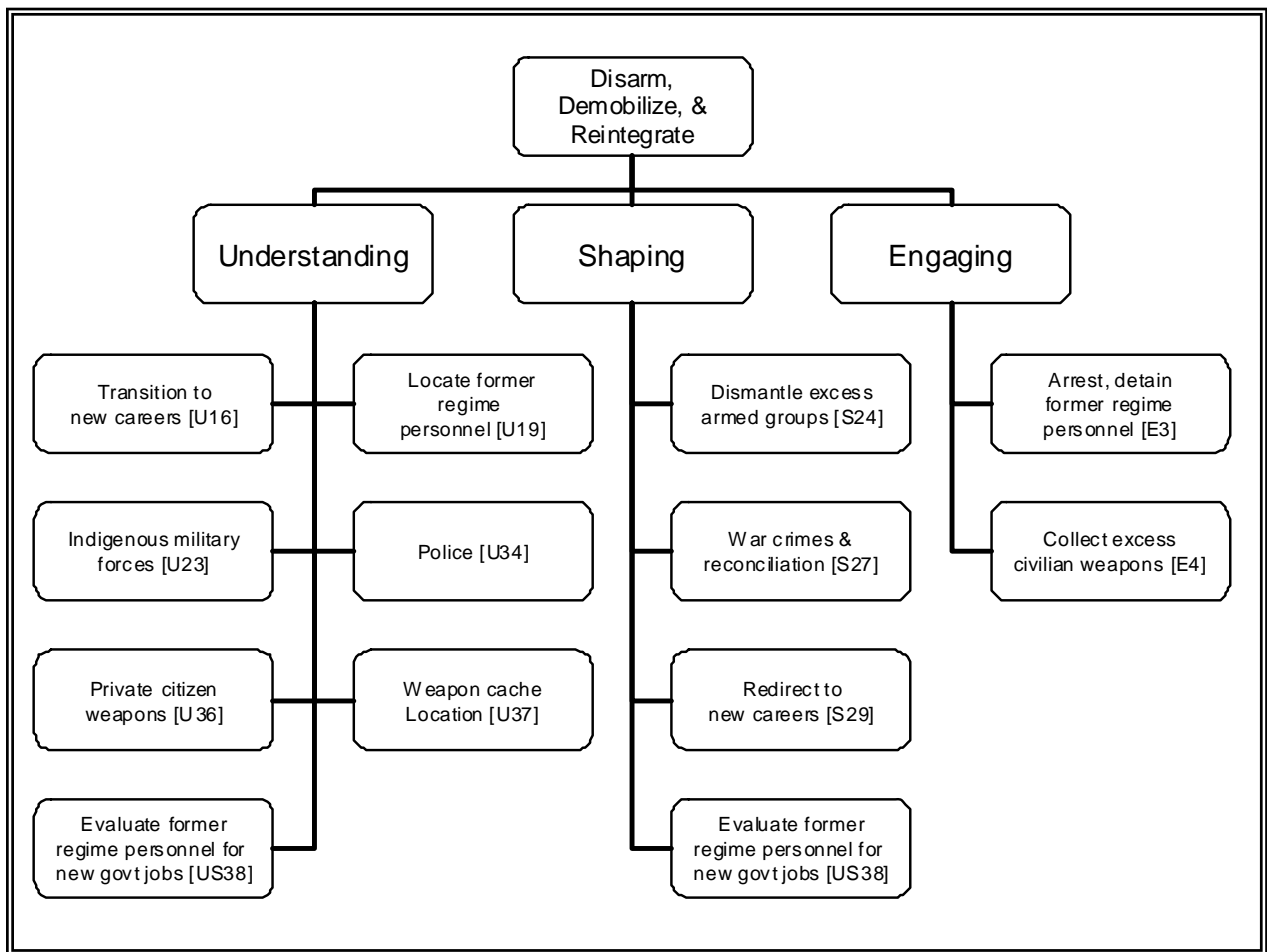
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Figure IV-24. Disarmament, Demobilization, and Reintegration Mission

X. Mission: Disarmament, Demobilization, and Reintegration

[U16]   Monitor the transition of former military forces, security forces, militias, and police personnel to new careers

A capability in need of substantial improvement.

As this transition process occurs, a careful monitoring of its progress is needed at every step.[243] As soon as an ex-soldier drops out of his job training program, this should raise a red flag. There needs to be a rapid recognition of the problem and a rapid response to investigate. This monitoring activity extends beyond the progress of individual clients, but also to the overall performance of the system. Key questions to ask are, how quickly and thoroughly are clients served? Are clients well matched to new career fields? Is the total pool of clients well identified? What is the success rate of finding these clients new careers, both in the short term and the long term? How accessible are the system's facilities? Does the system coordinate well with those who study the labor market and with those who study the insurgent personnel structure? For example, when someone drops off the radar screen of this system, does that information get passed on to those whose job is to track insurgent personnel?

While some success has been achieved in tracking former leaders, the majority of former enforcers of Saddam's police state have disappeared into the population.[244]

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[243] "By fall [of 2003] these disgruntled military personnel—with no profound sympathy for the defunct regime but outraged over the loss of status, privilege and jobs as a result of the disbanding of the armed forces in May 2003—were increasingly active in the ranks of the insurgency." Hashim, *Insurgency and Counter-Insurgency in Iraq*, p. 33.

[244] In December 2005, the outgoing interior minister described working with a "newly compiled" list of 16,000 former military and intelligence officers from the Saddam era. Jonathan Finer, "Iraq Minister Cites Threat of Hussein Loyalist," *Washington Post*, 21 December 2005, p. A24. It's of significant concern that such a list either didn't exist before this date, or required substantial updating at that point in time. A trained, organized, and hostile group of 16,000 can do tremendous damage to stability and reconstruction if left undiscovered.

[U19]   Locate individuals associated with the former regime and monitor their behavior

A capability in need of substantial improvement.

This capability begins with mapping the former regime and its personnel. When a regime has collapsed, all former regime members go somewhere. Some may leave the country but many are more likely to stay. Whether they stay in the country, the behavior of those former regime members will need monitoring. Human nature is going to compel at least some of these people to link up with any armed group that offers even the slightest chance of returning them to power. Their pre-existing organizations, leadership, and personal relationships can act to jump-start an insurgency.[245]

While some success has been attained in locating some personnel from Saddam's regime, many of them have disappeared only to reappear on wanted posters.

[U23]   Map all relevant details of all current or recently dissolved military forces, their ongoing performance, and the current and future need for such forces

See description under *Neutralize Red Forces*.

[U34]   Map all relevant details of all current or recently dissolved police forces, their ongoing performance, and the current and future need for such organizations

A capability in need of substantial improvement.

See also description under Working with Indigenous Security Organizations.

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[245]   Thirty months after the fall of Baghdad, Yasser Sabawi, a relative of Saddam Hussein, was arrested in Tikrit. The Iraqi Interior Minister described him as a major financier of the insurgency who helped funnel foreign money to fighters in Iraq. Jonathan Finer and John Ward Anderson, "A Shot To the Heart In Baghdad," *Washington Post*, 21 October 2005, p. A19.

[U36] Map the weapon inventories of private citizens and evaluate the level of weaponry needed for personal security

A capability in need of substantial improvement.

The number and type of weapons held by private citizens will vary, substantially based on several factors. Rural populations, especially those who regularly hunt wild game, will usually have more weapons than urban populations. Another variable would be the number of weapons left in private hands from military service. Long-running insurgencies may be supported by well-established smuggling routes or even by a local weapons manufacturing base. The recent collapse of the government could result in a sudden increase in private arms. Conversely, civilian inventories may be low if the current or past regime strictly limited firearm ownership.

Whatever the number of civilian arms, it should be compared to the number needed for personal protection.[246] Private citizens will only tolerate so much risk to their personal safety before taking action. This evaluation of private citizen security needs must be done with great care. A balance has to be struck between reducing the total number of weapons in circulation (in the government's interest), and allowing private citizens the tools needed to protect themselves when government forces are not around.[247] By definition, an insurgency means that gov-

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[246] The head of CPA, L. Paul Bremer, decided in May 2003 to allow Iraqis to keep AK-47s in their homes, provided they didn't take them outside. Dan Murphy, "Iraq Awash in Weapons," *Christian Science Monitor*, 20 October 2003, p. 1.

[247] A October 2003 Christian Science Monitor article provides an interesting insight into the attitudes of Iraqi officials who had experience in both the Saddam and post-Saddam eras. "In my opinion, we'd be a lot better off if we didn't let people keep AK-47s in their homes," says General Kadhem Abdul Khalik, the chief of police for Al-Risafa district, which encompasses about half of Badghdad. "Under the old regime, there were a lot fewer guns in private hands, and that made our job easier and safer." Dan Murphy, "Iraq Awash in Weapons," *Christian Science Monitor*, 20 October 2003, 1. The perspective shown in this quote highlights the divergence between the security of the state and its employees, and the private citizen. Yes, there were far fewer guns in private hands, but the "job" of the police in the former regime involved a lot more than providing security for the population. In fact, the "job" was often to use force against the population to enhance the *regime's* security. Additionally, while police security is an important concern, it is not the only concern. Police don't exist to protect police, no more than doctors exist to cure doctors. Police exist to protect themselves *and* the

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ernment security forces are not able to provide full coverage to a population, and at least some of this burden then falls on the citizens.

If the allowed level of private arms is set too low, then citizens will be more vulnerable to both criminals and the insurgents, or they will be tempted to violate the restrictions, making them more likely to violate other regulations. It is dramatically easier for the insurgents to intimidate an unarmed population. Two common fund-raising tactics of both criminal and insurgent groups are *kidnapping* and *protection rackets*. Both of these tactics become less attractive when the insurgents and criminals are faced with an armed population. If the population feels its security needs have been neglected by an overbearing government or military authority, then their relations with the government will suffer. Any deterioration in relations with the population will directly affect intelligence collecting on the insurgents.

Weaponry could be labeled excess by two metrics, quantity and type. Each household could be limited to an amount of weapons (e.g., one AK-47). Or each household could be restricted as to the types of weapons (e.g., pistols and rifles acceptable but no scopes, grenades, RPGs, man-portable anti-aircraft missiles, or belt-fed weapons).[248] Restrictions based on weapon type would be easier to enforce as they wouldn't require an accounting of inventories. The detection of a single prohibited weapon would suffice for determining a violation.

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population, and this entails accepting some risks. Many actors have important inputs into defining the security environment, with the police being one of those actors. But the *most important customer of security is the population*, and its interests and concerns can't be slighted without serious consequences.

[248] In the Fallujah area in June 2003, US forces tried a weapons amnesty program based on weapon type. However, it did not involve compensation and was largely unsuccessful. "The two-week program allowed Iraqis to surrender, without penalty, outlawed arms such as machine guns, grenades and other weapons that aren't used for personal protection." While many weapons were captured during raids in the area, few were turned in to the authorities. Alissa J. Rubin, "U.S. Conducts Wide-Ranging Sweeps In Iraq," *Los Angeles Times*, 16 June 2003, p. 1.

Today, DoD is largely ignorant about how many weapons from Saddam's disintegrated military ended up in private hands, and what level of weapons the population needs to protect themselves.

[U37] Locate weapon caches

Even after insurgents are captured, killed, or driven off, their weapon caches can remain. Locating and disposing of these weapons would prevent their falling into hands of criminals or the public. This capability would also be useful for finding and reducing the overall level of weapons held by the population.

See also description under *Neutralize Red Forces*.

[US38] Evaluate former regime personnel for roles in the new government

In a regime-change scenario, some personnel from the former regime will be able to take on new and constructive roles in the new government. The ability to do that will be based on criteria that may come from DoD. The qualification for a future role would be affected both by an individual's behavior when he was a part of the regime, but also by his behavior afterwards during collapse and reconstruction phases. Whatever those qualifications, the individuals themselves still must want to contribute to the future government. Analysis would be required to best fit an individual's qualifications, the needs of the new government, and the current conditions in the country.

In the case of regime change, planning needs to include the monitoring, apprehension, and transition of former regime members. The alternative is a system that learns as it goes, taking several weeks or months to sort itself out after the arrival of US forces. But the cost of such delays could be very high. Former regime members are not going to wait: they will be leaving the country or going underground within days or even hours of regime collapse. The best window of opportunity to capture these individuals will be just before and just after the re-

gime collapses—this demands a system that is planned and built *before* US forces arrive.[249]

[S24]   Dismantle excess or untrustworthy military forces, security forces, militias, and police, and collect their weapons

If more government security forces exist than are needed for internal and external threats, then they should be disbanded. These excess groups drain resources from other needs. If some armed groups can't be relied on to either do their job or obey the chain of command, they should be disbanded as well. This dismantling will require considerable care, as the personnel in these organizations could become a major destabilizing influence if disgruntled. A balance will need to be struck between giving these people respectful notice of dismissal and not allowing soon-to-be-unemployed armed individuals time to act on their anger. Practices for releasing employees from US commercial industry, local police forces, and US military all may provide some useful insights.

A key component will be the collection of weapons from these individuals and organizations. It will be important to inventory those weapons *prior* to giving notice that a particular organization will be disbanded. The key questions are, what weapons are in the inventory and how large is that inventory? What other equipment is important to track (e.g., radios, body armor, vehicles, ammunition, uniforms)? Where are those weapons and equipment stored? Should they be moved or secured in place, or should they be destroyed, sold, or transferred to other units?

Serious consideration should be given to providing incentives not to pilfer equipment stocks. The equipment will have obvious resale value so the temptation will be there to steal some on the employee's last day. This could be countered in part by providing compensation packages that depend on the organization's inven-

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[249] "In Iraq, the U.S. government seemed to have no plan at all for DDR [Disarmament, demobilization, and reintegration]—particularly reintegration—even well into the reconstruction effort." Bathsheba N. Crocker, "Iraq: Going It Alone, Gone Wrong," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 272.

tory remaining intact. For example, each policeman of a disbanded unit could be promised a lump sum payment two months after his last day, with the value of any missing equipment deducted from his final payment.

Aside from a careful inventory of equipment, personnel should also be carefully "inventoried" if not done so already. This may involve interviews, surveys on future plans, and/or biometric information collection. This sort of data could prove of great value if any significant portion of these personnel makes the transition to the insurgent or criminal organizations. Just the knowledge that authorities possessed his fingerprints or a record of his retinal scan might deter a former solder from crossing the line.

Once the personnel are dispersed, it will be far more difficult to collect this information, so it should be done before the unit is disbanded, even before notice of disbandment is given.

In sum, this is a delicate process that requires careful planning and execution. Otherwise, *ex post facto* corrective actions will come at a considerable cost.

[S27]   Support war crimes or national reconciliation tribunals as needed

Depending on the scenario, several factors could drive a need for war crimes trials or national reconciliation tribunals. The past for the host nation may be so painful as to need some sort of national psychological closure. This closure could come from trials or tribunals that bring into the open the atrocities of the past that could never be discussed openly. Finding and punishing the key guilty parties can help many of the population to "let it go" and, at the same time, can keep guilty individuals from taking up positions in the new government.[250] The

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[250]   In Anne Applebaum's excellent history of the Soviet Union's Gulag system, she notes a distinct lack of reconciliation with the past in today's Russia. She cites the insensitivity to the past abuses as contributing to the current lack of reform in Russia's police, courts, and prison systems. Anne Applebaum, *Gulag: A History*, (New York: Doubleday, 2003), pp. 564–577. (The book later won the 2004 Pulitzer for general nonfiction.) For a discussion of the pros and cons of a "Truth Panel" in contemporary Afghanistan, see Daniel Cooney, "Afghanistan

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list of "guilty" parties could include political and military leaders from a brutal past or present regime, corrupt or abusive police, or insurgents who targeted non-combatants.[251] An outside Blue team role in these proceedings could be driven by a lack of indigenous expertise or the desire for greater international legitimacy.

The success of these trials or tribunals could be measured by the following: speed of completion, proportion of the major guilty parties brought before the people, how closely the punishment fits the crime in the public's eye, and the degree to which the public is allowed to learn and vent about the crimes of the past. The true customer of this process is the public, so their favorable opinion is essential for success.

[S29] Redirect and guide personnel from dismantled military forces, security forces, militias, and police through a process to place them in new occupations

A capability in need of substantial improvement.

Once these personnel have lost their old jobs (perhaps ones with considerable prestige and power), they will need careful guiding through a process that finds a suitable replacement for their former vocations. The question is not *if* they find a new source of income but whether it's one that contributes to the stability or instability of society. In the open job market, the skill set possessed by most of these people will be very valuable to the insurgents. If a particularly desirable skill set resides in an individual who is bitter towards authority and has no viable future career, then these former security personnel will practically recruit themselves into the insurgency. Essentially, this involves a career guidance system for these unemployed. Personnel, an organization, and meeting facilities will be

Weighs Launching Truth Panel," Associated Press, 18 July 2005, accessed 05 July 2006 at http://www.tcf.org/afghanistanwatch/listserv7-21-05.htm.

[251] Post-apartheid South Africa formed a Truth and Reconciliation Commission to explore the crimes committed by the previous regime. Hearings were conducted from 1996 to 2000. The website of the Commission contains an explanation of its role: "…a commission is a necessary exercise to enable South Africans to come to terms with their past on a morally accepted basis and to advance the cause of reconciliation." – Dullah Omar, former Minister of Justice. Accessed 20 June 2005 at http://www.doj.gov.za/trc/.

needed to run such a system.[252] This process of guiding these people into new careers obviously starts with knowing exactly who they are. Information on the labor market, as generated by the relevant capability listed under *Labor Missions*, would need evaluation for promising career fields. It defeats the whole purpose to direct former soldiers to a field devoid of job openings. Some retraining will clearly be needed in many cases, and this is where the education system comes in to help.[253] The capabilities listed under *Education Missions* address this need.

The dissolution of the Iraqi Army was not matched by efforts to support those soldiers or find them new employment. Rather, they were dumped into a stagnant economy already overflowing with unemployed. Insurgent and criminal networks in Iraq were subsequently bolstered by a large pool of trained, talented, and motivated people.

[E3]   Apprehend and detain disruptive former regime personnel

A capability in need of substantial improvement.

For former regime personnel who are contributing to the insurgency or disruptive in some other manner, detention may be necessary. The influence they had in the old regime may translate into influence within the insurgency, enhancing its cohesion and legitimacy in the eyes of the population as well as the insurgents themselves. When detained, care should be taken to isolate these former leaders from other detained insurgents or even common criminals. The danger is they could build a following if allowed contacts, based on both their past position of power and the credibility that being detained would bring.

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[252] In some cases, such a system will exist for the most part in the society; in others, it will need to be created from the ground up. The specifics of the scenario will dictate if a separate career guidance system will be needed for former security personnel, or whether they can use the same system used by others looking for work.

[253] A 2004 CSIS study faulted the international community's efforts in Sierra Leone in the third step of disarmament, demobilization, and reintegration. More than 72,000 combatants were disarmed and demobilized, but little money was left for reintegration. This left a large and dangerous pool of unemployed and disenfranchised young ex-combatants with little stake in the future. Milan Vaishnav and Bathsheba N. Crocker, "Sierra Leone," in *Winning the Peace*, Robert C. Orr, ed., (Washington, DC: The CSIS Press, 2004), p. 232.

In Iraq, US and Coalition forces have had considerable success in apprehending former regime's leadership; however, most of the rank and file have disappeared back into the population and into the ranks of the insurgency. As trained purveyors of violence and intimidation, these tens of thousands of enforcers from the regime's security apparatus were well qualified to destabilize the new Iraq.[254]

[E4]   Collect excess weapons from private citizens

A capability in need of substantial improvement.

This task needs to be done carefully as it involves taking some element of their own security out of the population's hands.[255] While it may seem obvious, it's worth noting that during an insurgency this is a matter of life and death to the population.

Once the definition of "excess weapons" has been determined, a public relations campaign needs to begin. The campaign needs to explain clearly the exact definition of excess weapons, the rationale behind the definition, and the method of collection. No household should be surprised when the military shows up to check the household weapon inventory and to confiscate the excess. A large portion of the population needs to be convinced of the wisdom of such a policy if this policy is to be effective. Agreement with the policy and cooperation would be aided by compensating each weapon owner for every confiscated weapon.

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[254] *See* footnote 245 (Finer, "Iraq Minister Cites Threat of Hussein Loyalist").

[255] "Many Iraqis said it was beyond belief that Americans would enter houses or stop cars and take assault rifles without paying for them. The practice particularly grates in small towns, where people believe the weapons are necessary for protection." Tom Lasseter and Natalie Pompilio, "Baathist Aren't Only Angry Ones, Iraqi Say," *Philadelphia Inquirer*, 17 June 2003, p. 1.

The population should also be encouraged to report violators of this policy, perhaps with some form of incentive program.[256] As with any intelligence task, the local population is the greatest potential collection asset.

Most US Government personnel lack the cultural knowledge to either collect these weapons directly without offending the population, or provide the proper incentives to get the population to turn them in themselves.[257]

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[256] In the case of prohibited weapon types, a reward price list could be assigned by Blue. The price list could offer modest rewards for less threatening weapons (e.g., an RPG), and larger rewards for the more dangerous weapons (e.g., MANPADs).

[257] In reference to Iraq, "There is estimated to be between 0.75 million and 1 million tons of weapons and ammunition in largely unguarded ammunition storage points (ASPs) throughout the country." Hashim, *Insurgency and Counter-Insurgency in Iraq*, p. 163. *See* footnote 42 (Bowman, *Iraq*).

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Appendices

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Appendix A.
Capabilities Listed by
Understand–Shape–Engage

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Note: In the main body of this volume, the capabilities are listed under the missions they support; or for those capabilities supporting all of the twenty-three missions, under Foundational Capabilities. However, in this appendix the capabilities are listed by the portion of Understand, Shape, and or Engage to which they relate. Also different from the main body of this volume, the capabilities are listed here without descriptive text or supporting footnotes. Capabilities with two letters in their label (e.g., US30) will appear twice in this list, under Understand, Shape, and/or Engage.

I.   Understand

[U1]   Discern wedge issues that could set the population against the insurgents

[U2]   Discern divergences between population perceptions and reality and how to affect those perceptions

A capability in need of substantial improvement

[U3]   Discern what information delivery vehicles work best for each target audience and message

A capability in need of substantial improvement

[U4]   Monitor the reactions to the US influence efforts, and rapidly adjust as needed (BDA)

A capability in need of substantial improvement

[U5]   Monitor and evaluate insurgent information efforts

A capability in need of substantial improvement

[U6]   Map and monitor likely fault lines of conflict between population groups

[U7]   Map key individuals within the various groups that might be involved in conflict and influence options vis-à-vis those individuals

[U8]   Understand civilian movement patterns

[U9]   Understand the population's relationship with the government

[U10]   Map the general entry patterns of foreign insurgents and their transnational movements

[U11]   Map the foreign and domestic financial support network of the insurgents

[U12]   Map insurgent force size and capabilities

A capability in need of substantial improvement

[U13]   Map insurgent combat operations, movement patterns, and logistics

A capability in need of substantial improvement

[U14]   Map insurgent command structure, leadership, and motivations and goals

[U15]   Discern the level and nature of insurgent-civilian interaction

A capability in need of substantial improvement

[U16]   Monitor the transition of former indigenous military forces, security forces, militias, and police personnel to new careers

A capability in need of substantial improvement

[U17]   Map the insurgent community for internal fault lines and perceptions

[U18]   Identify critical civil system nodes needing extra security

[U19]   Locate individuals associated with the former regime and monitor their behavior

A capability in need of substantial improvement

[U20]   Understand the capabilities of foreign members of Blue and the roles they wish to play

[U21]   Understand the host government's plan for dealing with the insurgency

[U22]   Map the powerful individuals and departments in the government and their interests and motivations

[U23]   Map all relevant details of all current or recently dissolved military forces, their ongoing performance, and the current and future need for such forces

[U24]   Map the current state of all detention facilities, their ongoing performance, and the current and future need for them

[U25]   Map the current EOD and demining capabilities, their ongoing effectiveness, and the current and future need for them

[U26]   Urban BDA for kinetic and nonkinetic effects

[U27]   Discriminate the insurgents from the civilian population

A capability in need of substantial improvement

[U28]   Detect HAZMAT

[US30]   Track and maintain Blue troop morale during long duration campaigns

[UE31]   Monitor and filter traffic at approved border-crossing locations and other locations with minimal impact on legitimate commerce and travel

[UE32]   Monitor and stop cross-border traffic at unapproved locations

A capability in need of substantial improvement

[U33]   Map the current state of each civil system, its ongoing performance, and the need for it

[U34]   Map all relevant details of all current or recently dissolved police forces, their ongoing performance, and the current and future need for such organizations

A capability in need of substantial improvement

U35]   Map the physical terrain

[U36]   Map the weapon inventories of private citizens and evaluate the level of weaponry needed for personal security

A capability in need of substantial improvement

[U37]   Locate weapon caches

[US38]   Evaluate former regime personnel for roles in the new government

[U39]   Precisely discern an individual's identity

A capability in need of substantial improvement

[U40]   Map the patterns of crime

A capability in need of substantial improvement

[U41]   Map the interaction between criminals and insurgents

A capability in need of substantial improvement

[US42]   Locate and secure/destroy any WMD or other weapon stocks not held securely by the host government

II. Shape

[S1]   Coordinate "the message" with tactical and operational actions

A capability in need of substantial improvement

[S2]   Provide security to vulnerable groups

A capability in need of substantial improvement

[S3]   Include in planning issues important for transition

A capability in need of substantial improvement

[S4]   Coordinate ongoing DoD operations with non-DoD as needed

[S5]   Standardized rules and procedures for supporting civilian personnel in a combat zone who are working with or for DoD

[S6]   Inclusion of non-DoD organizations and personnel in the DoD planning process and exercises

A capability in need of substantial improvement

[S7]   Organize, train, and equip new indigenous military forces as needed

[S8]   Organize, train, and equip new police organizations as needed

[S9]   Urban C^3

[S10]   Intra-urban transport capability (land or air) for moving forces, supplies, and wounded to/from isolated locations in a city

[S11]   High mobility for dismounted infantry over urban obstacles

[S12]   Selectively disable utility, transportation, and communications infrastructure for the short-term with minimal damage

[S13]   Protect US personnel from disease, psychological stress, and hazardous materials

[S14]   Protect dismounted personnel from small arms, fragmentation, and blast

[S15]   Include in planning the unique logistical demands of long-duration irregular warfare and urban operations

[S16]   Disrupt insurgent C⁴ISR and logistics

A capability in need of substantial improvement

[S17]   Software and hardware tools for urban mission rehearsal and course of action assessment

[S18]   Counter IEDs

A capability in need of substantial improvement

[S19]   Rotate personnel in a fashion that strikes a proper balance between troop morale and fatigue and the preservation of experience

[S20]   Facilitate political party formation

[S21]   Standardized contract generation process (commercial contractors, local workers and companies)

[S22]   Conduct EOD and demining and assist other Blue doing the same

[S23]   Organize, train and equip new EOD and demining organizations as needed

[S24]   Dismantle excess or untrustworthy indigenous military forces, security forces, militias, and police, and collect their weapons

[S25]   Recruit influential individuals currently out of the government for government service

[S26]   Expand/improve each civil system as needed

[S27]   Support war crimes or national reconciliation tribunals as needed

[S28]   Deter crime

A capability in need of substantial improvement

[S29]   Redirect and guide personnel from dismantled indigenous military forces, security forces, militias, and police through a process to place them in new occupations

A capability in need of substantial improvement

[US30]   Track and maintain Blue troop morale during long duration campaigns

[S31]   Support existing indigenous military forces with supplies, personnel, equipment and funding while managing them

[S32]   Construct new detention facilities and organizations as needed

[S33]   Provide security to those critical nodes and individuals important for the functioning of each civil system

A capability in need of substantial improvement

[S34]   Create barriers within the country to restrict insurgent movement and logistical support with minimal disruption to legitimate movement

A capability in need of substantial improvement

[S35]   Minimize the risk of civilian movement

A capability in need of substantial improvement

[S36]   Supply personnel, equipment, consumables, and funding to operate detention facilities while managing them

[S37]   Support existing police forces with supplies, personnel, equipment and funding while managing them

[US38]   Evaluate former regime personnel for roles in the new government

[S39]   Organize, train, equip, man, fund, manage and plan for each civil system

A capability in need of substantial improvement

[S40]   Communicate and work with the host nation government

[US42]   Locate and secure/destroy any WMD or other weapon stocks not held securely by the host government

III. Engage

[E1]   **Form a cogent message and deliver it**

A capability in need of substantial improvement

[E2]   **Mediate disagreements between groups, before, during and after they turn violent**

[E3]   **Apprehend and detain disruptive former regime personnel**

A capability in need of substantial improvement

[E4]   **Collect excess weapons from private citizens**

A capability in need of substantial improvement

[E5]   **Anonymous tip tools to allow the population to safely pass information to members of the Blue team**

A capability in need of substantial improvement

[E6]   **Provide fire support in the urban environment with minimal collateral damage**

[E7]   **Counter-sniper**

[E8]   **Conduct combined arms operations at the small unit level**

[E9]   **Clear buildings rapidly, efficiently, and safely for both US forces and civilian inhabitants**

[E10]   **Destroy point targets with minimal collateral damage**

[E11]   **Non-lethal tools for separating or keeping separate the insurgents from the civilian population**

A capability in need of substantial improvement

[E13]   **Apprehend, process, and detain criminals via the courts and detention facilities**

A capability in need of substantial improvement

[E14]   Process to find, vet, hire, train and pay local experts and other workers

[UE31]   Monitor and filter traffic at approved border-crossing locations and other locations with minimal impact on legitimate commerce and travel

[UE32]   Monitor and stop cross-border traffic at unapproved locations

A capability in need of substantial improvement

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Appendix B.
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Appendix C.
List of Acronyms and Abbreviations

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3D	three dimension, three dimensional
4GW	fourth-generation warfare
AFB	Air Force Base (United States)
APC	armored personnel carrier
ARNG	Army National Guard
ASP	ammunition storage point
AT&L	Acquisition, Technology, and Logistics
ATF	Alcohol, Tobacco, and Firearms
AWACS	Airborne Warning and Control System
BDA	Battle Damage Assessment
C2	command and control
C3	command, control, and communications
C4ISR	command, control, communications, computers, intelligence, surveillance, and reconnaissance
CAP	Combined Action Platoon (program)
CBA	capability-based assessment
CETO	Center for Emerging Threats and Opportunities
CIA	Central Intelligence Agency
CIDG	Civilian Irregular Defense Group
CINC	Commander-In-Chief
CJCS	Chairman, Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CJCSM	Chairman of the Joint Chiefs of Staff Manual
CMO	civil-military operations
CNO	computer network operations
COCOM	combatant command
COIN	counterinsurgency
CPA	Coalition Provisional Authority
CSIS	Center for Strategic and International Studies

DAWG	Deputy's Advisory Working Group
DDR&E	Director, Defense Research and Engineering
DoD	Department of defense (United States)
DoS	Department of State (United States)
DOTMLPF	doctrine, organization, training, materiel, leadership and education, personnel, and facilities
DPS	defense planning scenario
DSB	Defense Science Board
DSPD	Defense Support to Public Diplomacy

E	Engage
EMP	electromagnetic pulse
EOD	explosive ordnance disposal
EPA	Environmental Protection Agency
EW	electronic warfare

FAA	Functional Area Analysis
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FLN	*Front de Libération Nationale* (Algeria)
FM	field manual
FNA	Functional Needs Analysis
FSA	Functional Solutions Analysis
FSO	Foreign Service Officer
FYDP	Future Years Defense Program

GoI	Government of Iraq
GPS	Global Positioning Satellite
GVN	Government of Vietnam
GWOT	Global War on Terrorism

| HASC | House Armed Services Committee |
| HAZMAT | hazardous materials |

HMMWV	High Mobility Multi-Purpose Wheeled Vehicle
HN	host-nation
HNG	host-nation government
HUMINT	human intelligence
ID	identify, identification
IDA	Institute for Defense Analyses
IDF	Israeli Defense Force
IED	improvised explosive device
IMN	Iraqi Media Network
IO	information operations
IPB	Intelligence Preparation of the Battlefield
IRA	Irish Republican Army
ISF	Iraqi security forces
ISR	intelligence, surveillance, and reconnaissance
IT	information technology
IW	irregular warfare
JAWP	Joint Advanced Warfighting Program
JCA	Joint Capabilities Areas
JCD&E	Joint Concept Development and Experimentation
JCIDS	Joint Capabilities Integration Development System
JCOA	Joint Center for Operational Analysis
JDAM	Joint Direct Attack Munition
JFC	joint force commander
JFCOM	Joint Forces Command (United States)
JIEDDO	Joint Improvised Explosive Device Defeat Organization
JP	joint publication
JTF	Joint Task Force
JWFC	Joint Warfighting Center
kg	kilogram

KIA	killed in action
km	kilometer
LTG	lieutenant general
MANPAD	man-portable air defense
MCO	major combat operations
MI	military intelligence
mm	milimeter
MoI	Ministry of the Interior
MOUT	Military Operations in Urban Terrain
MP	military police
MPAT HEAT	high-explosive multipurpose antitank high-explosive antitank
NATO	North Atlantic Treaty Organization
NGO	non-governmental organization
NLOS	non-line of sight
NSC	National Security Council
NTC	National Training Center
NVA	North Vietnamese Army
NYPD	New York Police Department
OAS	*Organisation Armée Secrète*
OIF	Operation Iraqi Freedom
OODA	observe, orient, decide, act
OPSEC	operations security
ORHA	Office of Reconstruction and Humanitarian Assistance
OSCE	Organization for Security and Cooperation in Europe
OSD	Office of the Secretary of Defense
PA	Public Affairs
PA&E	Programs Analysis and Evaluation

PD	public diplomacy
PME	Professional Military Education
PR	public relations
PROVN	a Program for the Pacification and Long-Term Development of South Vietnam
PSYOPS	psychological operations
QDR	Quadrennial Defense Review
QRF	Quick Reaction Force
R&D	research and development
RF	radio frequency
RoE	Rules of Engagement
RoL	Rule of Law
RPG	rocket-propelled grenade
RW	regular warfare
S	Shape
S&R	stability and reconstruction
S&T	science and technology
S/CRS	State [Department]/Coordinator for Reconstruction and Stabilization
SAIC	Science Applications International Corporation
SAM	surface-to-air missile
SC	strategic communications
SOCOM	Special Operations Command
SOF	special operations forces
TC	Theater Communications
TOW	tube launched, optically tracked, wire guided
TTP	tactic, techniques, procedures
TV	television
U	Understand

UAV	unmanned aerial vehicle
UJTL	Universal Joint Task List
UK	United Kingdom
UN	United Nations
UNITA	*União Nacional para a Independência Total de Angola* (National Union for the Total Independence of Angola)
US	United States
USA	United States Army
USAF	United States Air Force
USAID	United States Agency for International Development
USD	Under Secretary Of Defense
USECT	understand, shape, engage, consolidate, transition
USG	United States Government
USMC	United States Marine Corps
USSOCOM	United States Special Operations Command
VBIED	vehicle-borne improvised explosive device
VC	Viet Cong
VCJCS	Vice Chairman Joint Chiefs of Staff
VN	Vietnam
VSM	Very Small Munition
WIA	wounded in action
WMD	weapons of mass destruction
WP	Warsaw Pact
WWII	World War II

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14. ABSTRACT

The complexity of irregular warfare (IW), how it differs from regular warfare, and its appeal to enemies of the United States all make understanding the missions and capabilities involved in IW crucial for DoD—and the national security of the United States. Volume II supports the previous volume, *Framework and Applications*, by laying the foundation for understanding IW missions and supporting capabilities. Although drawing substantially from the Iraq conflict, the study team intended this mission map to be generic and applied across a range of IW scenarios. The missions were grouped by their likely participants: the Combat and Support Missions group represents missions with a major role for military members of the Blue force, while the other four groups are more of a civilian nature, that is, supporting the host-nation government. Capabilities most lacking in their current performance in Iraq were labeled as being "in need of substantial improvement." The author found an important subset of the ninety-two capabilities to be foundational in nature: these thirty-four Foundational Capabilities supported most or all of the missions. Among the key weaknesses identified in the capabilities were the lack of support in protecting the population, understanding the conflict environment, and supporting civil systems. This volume provides a useful reference on IW.

15. SUBJECT TERMS

Analysis; assessment; capability; civil-military coordination; counterinsurgency; framework; human terrain; influence operations; Iraq; irregular warfare; law-enforcement techniques; military; mission; personal interactions; policing; process; program; reconstruction; rule of law; security; stability; technology; tools; transition.

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